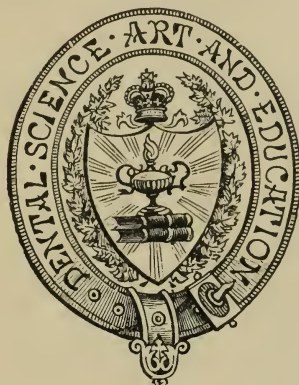


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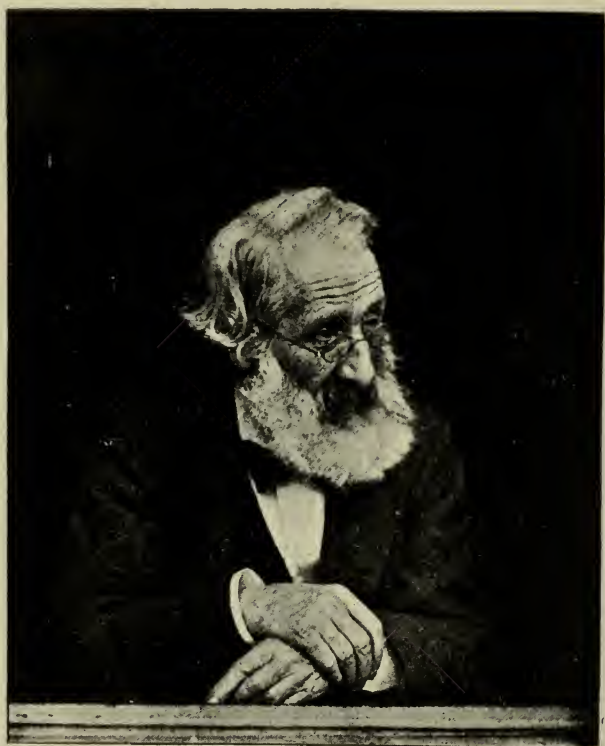
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SIR JOHN TOMES, F.R.S.

Dominion Dental Journal

VOL. VIII.

TORONTO, JANUARY, 1896.

No. I.

Original Communications

SIR JOHN TOMES, F.R.S.

We have already alluded, in the September number of last volume, to the death of Sir John Tomes, on July 29th of last year, in his 82nd year. We are sure our readers will be glad to possess the accompanying portrait, which we received last summer from the Committee of the Sir John and Lady Tomes' Golden Wedding Gift Fund, as a memento of the occasion, and which has the double interest of having been photographed by the distinguished son and successor of the late Sir John. We are sure that we express the general wish of the profession in the suggestion, that Mr. Charles Tomes should some day give us a biography of his late father's career. Like many another eminent practitioner, he began the study of medicine under the great difficulties which existed so far back as 1831, and eventually was appointed dental surgeon to King's College Hospital; and subsequently at Middlesex Hospital, he finally began dental practice in 1840. In a letter we lately received from Mr. Charles Tomes, he refers to his father's "long and painful illness, passing the last few weeks in a state of partial unconsciousness." Mr. Tomes mentions that he has found some old account-books of his father's, of his earliest days in London, "when he was living in lodgings on less than £1 a week, and even then was commencing his microscopical work, and associating himself with Todd, Bowman, Kiernan, and other early English histologists." These and the many personal and professional reminiscences which must exist, would form one of the most interesting and inspiring volumes in the literature of dentistry. We reiterate the hope that Mr. Tomes will place us under obligations by becoming its author. Among our own pleasant

recollections, we recall kindly letters received from him when we ventured, in 1868, to establish the first dental journal in Canada. In conjunction with Sir Edwin Saunders, dentist to Her Majesty the Queen, his many little acts of friendliness can never be forgotten. Without an exception, our contemporaries have paid their tributes to the memory of Sir John, and none more fraternally than the journals of the United States.

DENTAL ETHICS.

By R. J. READ, B.A., D.D.S., Athens, Ontario.

Can dental ethics be discussed intelligently and beneficially apart from the question of general ethics? This is the first thought that presents itself in considering the subject of this paper. In order to obtain a satisfactory answer it is first necessary to have an idea of the subject matter of ethics. This we will define to be that which is ultimately good for man—man not only individually, but socially. Dental ethics then will be a consideration not only of such conduct, but of such a disposition as will attain the greatest good of man in the capacity of dentists. The ethics of advocates and physicians will have for their end the final good of these professions. This statement suggests another inquiry. Is there a separate ultimate good for each society of men? Do these societies, of necessity, interfere with each other in the attainment of their ends?

These questions will be best answered by a consideration of the criterion by which we judge right and wrong. But first let us understand our terms. We will define a right act to be such as will advance the good of man; and a wrong act to be one that will hinder the good of man. One may be said to act morally when his act is such as furthers the ultimate good or *summum bonum* of man. Now, how do we judge the right from the wrong? To this question ethical writers have given various answers. One replies that we have a moral sense, an intuition which determines at once the right from the wrong. Another class, the egoistic hedonists, claims that self-interest is the standard of determining actions. And yet another class, the universal hedonists, advances the idea that happiness is the aim of man; yet this happiness is not to be sought solely for the individual, but for humanity as a whole; hence the necessity of duly subordinating the interests of the individual to the interests of the whole.

We will now consider happiness as the *summum bonum* of man—as that for which all men strive. If it be admitted that happi-

ness is the desire of all men, then we must learn what happiness is. But here again we have various and conflicting opinions. Some will say that riches constitute happiness. This idea can hardly be accepted, for we have many instances to prove that money does not bring satisfaction, but very often it brings idleness and consequent misery. Some will urge, not money, but the possibilities which it brings, is happiness—for example, fine houses, horses and carriages, and good living generally. Thus it is admitted that money is not the end, but only the means to procure further ends. But consider, are these further ends, as good-living, happiness? Experience denies this. A sick man groans that health will bring him happiness. Is it not admitted that healthy people are sometimes unhappy? Some contend that happiness consists in the exercise of the intellectual faculties, and that the sensualist is wrong in believing his mode of life brings happiness. Pleasure being the end, why is the life of a sensualist condemned? Why is one pleasure considered better than another? Why is the pleasure of the artist superior to the pleasures of insobriety? The drunkard contends that he enjoys life as much as, or more, than the temperate man. If intemperance brings more pleasure, is it then right? The rejoinder will be that men who in their youth spent their life in riotous living, and who afterwards, in middle age, reformed and pursued intellectual pleasures, found the latter to be more permanent and enjoyable. The reply to this will be that what would be a pleasure in youth might not be a pleasure later in life, because the former mode of living had palled the senses and unfitted the animal organization for such pleasure. If the intellectual pursuits had been followed in early life, pleasure might not have been the result. Again, that which is a pleasure to one might be a source of indifference or pain to another. If we consider the greatest amount of pleasure as the *summum bonum* of man, would we not be justified in judging that person who could enjoy the greatest amount of pleasure, whether intellectual or sensual, the most moral?

If it is now suggested that we must consider the character of pleasure, then it becomes a question of *quality*, not *quantity*. Now, the *quality* of a pleasure being urged, the theory of the greatest amount of pleasure loses its distinctive contention, and we are compelled to seek elsewhere an answer to our original inquiry, the good of man. In pursuing this inquiry there is a common error which must be avoided; this error consists in confounding the fact that the pleasure which accompanies the attaining of a desire is the object of that desire. One has a desire for food, and in satisfying that desire pleasure is present, but pleasure was not the object of that desire. Man has a desire to become something better than he is. Whence is this desire? and what is the essence of it? The

desire is derived from our capabilities, and these capabilities are known only so far as they are attained. The functions of one generation will be much greater, *pari passu*, than those of a former generation. And so our desires to become better increase in the same proportion as our capabilities increase. The essence of the desire to become better than we are is the fulfilling of our capabilities. Although the ultimate possibilities of man are unknown, and so far they are vague, yet our present capabilities are known, and so far they are definite. He who seeks for momentary and fleeting pleasure will never obtain satisfaction, for that is only attained in so far as it accompanies the realization of our functions.

Now, in what way is man related to his fellow-beings in the fulfilling of his capabilities? The basis of society is the recognition of man's individual rights. Each individual has his own peculiar capabilities, and the object of each is the realization of such. Then the rights of the individual consist, in part at least, in his being free from such interferences as will retard his progress towards the good. Since individuals form a society, then as each realizes his functions, so the possibilities of society are increased. The fact that we are yet striving shows clearly that we have not yet attained the ultimate good. To become better than we are we must recognize in our fellow-beings that same yearning for something higher—a desire common to them and us. The reformer recognizes this fact, or at least acts on this principle, when he endeavors to improve the condition of his fellow-beings. To increase our capabilities we must have the opportunities for so doing; and these opportunities occur in proportion to the increase of the capabilities of those with whom we are connected. In order that the possibilities of the dentist may increase there must be an advance in the education of the community—the people must learn what may be done for them. When they then take advantage of these opportunities they increase the possibilities of the dentist; and also by improving themselves by his services increase their own capabilities. So as the ability of the dentist increases and he performs better services, that is, as he increases the possibilities of society, so he increases the means for still greater possibilities on his own part.

The foregoing account of the theory of ethics is indeed scant. A mere mention of some of the ideas advanced by ethical scientists has been made. Replies and counter-replies as to the origin of the desire to become better than we are have not been considered. This is so of necessity, as a prolonged discussion on this part of the subject would be out of place here. So, on the other hand, an attempt to discuss the subject of dental ethics without any reference to the aim of general ethics—understood as the ethics which relate to man—would be to deprive the discussion

of much of its usefulness. It was thought better to preface what may be termed the practical part of the subject in this manner to show the way in which we are related to our fellow-beings; to point out that though we are dentists with our peculiar aims in life, yet we are bound to our fellow-men to further one common purpose, the perfection of mankind; and to clearly impress the idea that whatever advances the condition of the community will increase the advantages of the individual, and on the other hand, whatever militates against the rights of our fellow-men will in turn diminish our own possibilities.

We will now proceed to the practical part of the subject, and discuss our duties under the following heads and in the order mentioned: Our duties to ourselves, our duties to our profession, and our duties to our patients.

Duties to ourselves cannot be entirely separated from our duties to others, as may be seen from what has already been advanced; for that which is good for the individual is by reaction good for the whole; and what is good for the community redounds to the benefit of its component parts. Self-interest, or egoism, is a primary necessity in order that we may become serviceable to ourselves and others. If that care is not taken of our bodies that will enable us to fulfil our capabilities, then the amount of good that is due to ourselves and others cannot be accomplished. Therefore, in order that we may do our best, due attention must be given to our bodily welfare. Physical exercise and regard to diet will then be considered among the first duties to self. Unless the physical part of man is properly cared for, the mental capacities cannot be cultivated to their fullest extent. Reading will accomplish little unless the mind is rested and in such a state as to receive. Nor can our daily occupations receive their due attention if the body is not vigorous. All the patience of a healthy person is necessary in attending to the *minutiæ* of delicate operations. These operations are performed every day, and the same care is always necessary. If the operator is tired, then in completing the necessary details of the work there is a greater strain on the nervous system than should be; and if the operations are not done to the best of the operator's ability, then a sense of unworthiness will follow, and the thought of not having done one's best will again have a depressing effect on the nervous system.

From this follows the necessity of having certain regular hours for practice. Too much work and confinement will militate against health, and too long office hours will shorten the time that should be given to such recreations as will produce a healthy state of mind. But what will be said of such practices where more work comes into the office than can be accomplished in the prescribed hours? Is that work to be lost? This is a world in which money is

necessary to achieve certain ends or fulfil certain capabilities. We will consider a practice so large that it cannot be attended to in the fixed time. In order to retain such a practice it is compulsory to have longer hours. Let us examine to what this leads. Now, the result of having longer office hours than is compatible with health is inability to do the best that one is capable of doing ; hence the excellence of the operation is less than our capability, and this, according to the theory advanced, does not tend to our greatest good. But then, shall we turn patients away, saying, "We have no time to work for you ; go elsewhere" ? It is better to do this than to become sick and irritable and do inferior work. The best rule is, Do the best work. If we always do satisfactory work, our patients will not wish to go elsewhere, other things being equal ; they would prefer to pay us more rather than lose our services. In this way we would get more for our ability, we would conserve our dignity and health, we would gain an appreciative class of patients, we would do more good to mankind by fulfilling our capabilities, and we would enable one with a smaller practice to fill up his spare hours.

Again, we are remiss in our personal duty if we neglect to improve our knowledge of our chosen profession. It is right that we should read what others have given us of their best thoughts, that we may thus increase our capabilities. Each one who desires not only to improve himself, but others, will collect a well assorted library of the best works on dentistry. Not only is it necessary to have a dental library, but it is imperative that we should subscribe for one or more of our dental journals. Those who do not read the journals know not what opportunities they lose for improving their ability. It is not only the thoughts contained in the journals of which they are deprived, which in itself is a sufficiently important factor, but, what is of more value still, they are barren of those thoughts which these ideas might beget. Without the assistance of dental literature we cannot feel that we are doing our best ; and if we are not fulfilling our capabilities, then again, according to our theory, we are not attaining our greatest good.

Another important duty to ourselves is independence of thought and action. That which we believe to be right must be sturdily maintained in the face of all opposition. If we pursue, and have pursued, in our practice certain methods of treatment, then it is cowardly, undignified and at variance with our good to be frightened from that practice because others depreciate it. Are there any in the profession who simply repeat what others have said, who have little or no idea of the *modus operandi* of the treatment they pursue ? If there is a method of treatment or a medicine that is unfashionable, how many are there who will be sufficiently independent to admit that they make use of this same treatment in

their practice? (All credit to those who are.) True human nature must be loyal to its convictions. That which we have proved good let us maintain, and at the same time conserve our dignity. Must we introduce examples of fashionable treatments? If so, it would be necessary only to examine the history of amalgam fillings and root-canal fillings. Who but fearless men maintained the efficacy of amalgam fillings amid a storm of opposition? Some were so fearful of ridicule that they feigned horror at the mention of amalgam. Why fearful? Because some men, deservedly high in the profession in some respects, denounced it. What was the duty of each man? To prove and to hold by that which was true. Now that the heroic wave in respect to this amalgam is sweeping over the profession, when men rise up in associations to announce that they are not ashamed to use this filling material, and that great credit is due Dr. Flagg and his associates for their manliness in maintaining their convictions, let it be remembered that the other extreme is to be avoided, unless it is proved true. It is not our duty to receive with open mouths and closed understandings (if such an expression be permissible) what is told us. We must test and observe, if we are to cultivate our capabilities and fit ourselves to become better than we are. What! and shall one be willing to class himself among "the rank and file," so called, of the profession? So one may be wrongly classed by some writers who take to themselves unwarranted judicatory functions; but such a one will know how true the classification is. If the capabilities be exercised to their fullest extent, one will not thus class himself; but a lazy and neglectful person will feel that such classification is just.

One possessed of true dignity will not do good solely for the sake of praise. The praise of our fellow-men is indeed a pleasure and an incentive; but let that pleasure be rather an accompaniment of the exercise of our capabilities than the end of our desire. Good actions should be the result of an inmost desire to become something better than we are. If we stand in public places and pray, we earn the praise of men, but at what a sacrifice! Our self-satisfaction is lost, our dignity gone. All the purer feelings that tend to elevate and lead us on to the true end of life are, in a measure, adulterated, and we are indeed miserable, let outward appearances be what they will.

(To be Continued.)

THE SALIVA IN PROGNOSIS.

By W. D. COWAN, L.D.S., Regina, N.W.T.

I have, after devoting considerable attention to it, come to the belief that the saliva is an agent which may be employed to materially assist in determining the success which will attend the filling of many cavities, and that it is of sufficient importance to warrant greater attention at the hands of the dentist than it receives.

It is true, I think, that the teeth of some are much more susceptible to after influences than others, and to successfully determine a tooth in which such influences are likely to be harmfully exerted is often a very difficult task.

We may fill two cavities precisely similar to all appearances, in different patients, physically alike; we may do our work with equal thoroughness. In one, the filling may prove a lasting blessing, while the other may, within a week or so, return and complain of inability to drink anything, either hot or cold, without causing undesirable pain, or of sharp, shooting pains, which reach to the eye or the ear, and of it being impossible to touch the filling with anything metallic. Of course, we do not become a party to the astonishment that they express, that such a thing should occur, but we must either persuade our patient that after the formation of osteo-dentine these pains will cease; or possibly proceed to the removal of the filling and the treatment and filling of the tooth by different methods. Is it possible for us to determine between the two classes of patients?

The temperament of the patient will certainly help us; so, also, will the saliva, I believe, to a much greater extent than we generally accept, and that because it is a means of revealing to us, to a certain extent, the susceptibility of the patient to pain, and to these influences which produce pain, some patients, because of a blunted sense, being less subject to these influences than others. I have noticed in my practice that it is seldom that any of my patients in whose mouths the saliva is of a thick, mucid, stringy character, and gathers in little bubbles at the corners of the mouth when the lips are closed, or forms strings, as it were, from one lip to the other when the mouth is open, or who has a gummy, sticky, generally filthy looking deposit of greater or less extent from the saliva on the lips forming a light circle at the point of contact of the lips, are troubled with the symptoms previously described. I have therefore become very confident of success in filling cavities in the teeth of such a patient by using only the ordinary precautions and following the usual procedure. On the other hand, if my patient is one who is gifted with an excess of saliva,

and that of the most watery description, I would not attempt an all metallic filling, unless the cavity was of a very shallow nature. In other words, a filling that I would insert for the first patient, with only ordinary precautions, I would for the second patient use extraordinary precautions, probably a heavier capping, a combination filling, or at least proceeding as if I knew beforehand that the tooth was going to be subject to after influence.

COUNTRY PRACTICE.

By S. W. MCINNIS, D.D.S., Brandon, Manitoba.

Those of us who have been fortunate enough to practice in a city only, know very little of the difficulties in the way of preservation of the teeth in a country practice.

The patients of the city, whether resident or visiting, are educated, to a great extent, as to the value of their teeth and the possibilities of dentistry. With people living in villages and the outlying country it is not so; at least, not nearly so much so. The farmers' dental creed is very simple: "If your tooth aches, have it pulled." The brushing and cleansing of the teeth are, to the ordinary farmer, like the wearing of a white starched shirt—an uncalled for and snobbish extravagance. The farmer's wife or daughter looks forward to the time when she can have as pretty a "new" set of teeth as her neighbor, Mrs. J., with a longing proportionate to the envy, ambition and vanity of her nature. This ignorance, this lack of education, is one of the foremost difficulties to be encountered in a country practice. The next difficulty is the infrequency that the dentist is within reasonable reach of the patient, and the short length of time allowed for each visit.

Take my own case, as a fair example. I visit several villages within a radius of fifty miles of my house—my head office. Some of these villages I visit monthly, some every two months, some quarterly and some once or twice a year. The length of time spent in any one of these villages at one visit seldom, or never, exceeds two days. Patients present their mouths with teeth in all stages of irregularity, decay and disease. The patients are not rich, do not value their teeth as they should, are not willing to spend much time or money in having them straightened, filled or made healthy. All this necessitates that the operator must be ready to complete the operation within a very limited time, to fill many cavities at a slight cost and with little pain to the patient; to impart as much information as possible, and as kindly and forcibly as possible during the operation and at the conclusion to put into the hands of the patient the necessities for properly cleansing the teeth.

It generally falls to the lot of our young college graduates, accustomed only to city practice (little or much, as it may be), to fill the openings in country districts, and it is to be regretted that in our schools so little attention is paid to preparing the young student to meet the difficulties of such a practice. No doubt, however, now that the term at college has been lengthened, and is to be still further lengthened, more time will be allowed the instructors to prepare the student for such an emergency as taking charge of a country practice.

It has been my lot to conduct a country practice for a number of years, and I have learned many things which, as a young man at college, I never heard of, and I have also found that many things which I at first thought dangerous and inadvisable, are, in themselves, good things, and often very necessary. For the sake of those who may be now placed as I was only a few years ago, let us glance at one or two of these things briefly.

The extensive use of plastic fillings becomes a necessity, because such fillings can be cheaply and quickly inserted. Amalgam, notwithstanding all that has been said against it, is the great friend of the country practitioner and the patient poor. An extensive use of Logan crowns, without bands, I have found to be very advantageous and satisfactory.

The great difficulty is the treatment of diseased teeth. I regret that the short space allowed will not permit of anything but the briefest mention of some forms of treatment advisable in the country, not generally followed in the city.

I have found that cocaine can be used to make the immediate extraction of the pulp almost painless in the ten anterior teeth, upper, and cuspids and bicuspid, lower.

I have found that punctured applications of arsenic under temporary amalgam fillings, will not only destroy the pulp, but in all probability keep the tooth comfortable till a return visit can be made three months, six months, or even a year, afterwards.

I have found that in subacute cases of peridontitis from putrescent pulp, the pulp can be removed, the tooth cleansed and filled, the peridontitis treated systematically and locally, and the patient dismissed within an hour, with every promise of the tooth becoming quickly, and remaining permanently, comfortable.

In cases of painful eruption of third lower molars, where the jaw is full of teeth, or inclined to be crowded, it is almost always advisable to extract one or both (second lower) molars, and this should be done at first presentation. To remove any salivary calculus and cleanse the teeth thoroughly with pumice and revolving brush, or soft rubber wheels, is always advisable, whether requested by the patient or not.

These are simply a few hints. I hope that some one with more time and experience will take up this subject and do it justice.

PYÆMIA AS A SEQUELÆ OF PYORRHŒA ALVEOLARIS.

By A. E. VERRINDER, L.D.S., Victoria, British Columbia.

The following case of recent date may be regarded as a typical representation of the most persistent form of this disease :

A gentleman came under my care some three weeks since, who had been for some two years past under treatment by different members of the medical profession. They had all treated him for the same malady—malaria—and his last physician had ordered a complete change, in order to save the patient's life.

Taking advantage of his vacation to have a troublesome molar attended to and filled, he consulted me to repair the wrong. Making a careful examination of the entire arch, which consisted of an unbroken denture, I found very little requiring attention. Remark on the general state of his bad health, and noticing his cachectic condition, I touched the right chord, and he recited his miseries of the past two years, and his looks did not belie his words, he being resigned and prepared for the worst. On further inspecting the oral cavity, I found a marked receding of the gums, and, probing, found a diseased process almost in its entirety. On pressure, a foul, unhealthy pus exuded—the first intimation I had of any odor. My suspicions now being aroused, I questioned him minutely in regard to the symptoms, and I found a febrile condition, with coated tongue and a temperature of 103°. He complained of headache, constipation, dizziness, sleeplessness, loss of appetite, and at times during the last twenty-four hours, nausea. Noting the conditions, I told him he had "no more malaria than I had," but was suffering from the absorption of this septic matter. To convince him, I placed the hand-mirror in such a position as to give him a view of the exuding pus, furnishing evidence that something was wrong. He accordingly concluded to try my suggestions, with the result that after a vigorous and stimulative treatment—both systematic and locally—combined with proper antisepsis, he began to improve rapidly, and a week since he journeyed home, expressing himself a strong and healthy man for the first time in two years.

At this writing, I have received no further communication, so conclude all is favorable. No doubt, from the slovenly way in which he had attended to the hygiene of his mouth, matters had gone from bad to worse, and, having almost a perfect arch of teeth, considered he had no use for the services of a dentist, while the absence of any severe local symptoms led his physicians astray, and from the

resulting absorption of this septic matter, blood-poisoning had actually set in. This form of disease is very prevalent on the Pacific coast, whether from the influx of an already unhealthy people, or directly attributable to the climate itself, I do not know, but I do know that these cases are more or less numerous with all British Columbia practitioners, although not so far advanced as to produce such severe constitutional symptoms, except in rare cases as stated. I feel justified in asserting that as many deaths occur from supposed malaria, when it is simply absorption of this septic matter and complications arising therefrom, as from genuine malarial fever.

DENTISTRY IN PRINCE EDWARD ISLAND.

By J. S. BAGNALL, D.D.S., Charlottetown, P.E.I.

The needs of the people here are attended to by ten dentists, an increase of seven in a very few years, but the advances along the line of better dentistry are slow, unless advertisements for painless extraction and "guaranteed good work cheap," count.

Since the passing of the law that a dentist must be a graduate of a recognized school, there has not been any students spending their summer months here as full-fledged practitioners. It is to be hoped that a greater interest in the saving of the natural teeth can be cultivated.

ANTISEPSIS AND ITS RELATION TO DENTISTRY.

By C. A. MURRAY, D.D.S., Moncton, New Brunswick.

It is a fact beyond all question, that no part of the human anatomy has received so much attention during recent years as the teeth and the surrounding parts. Science, which has in the present century done so much to ameliorate the condition of the human race, has in the last twenty-five years made wonderful strides in the department of dental surgery. In the science of dentistry, belief of individuals, and the opinions of dentists, are constantly changing in regard to the most important questions of our profession. This change usually occurs without attracting the attention of some practitioners, who think they stand on the same level professionally as those men who work out the changes and keep

abreast with the modern advancement of the profession. These practitioners make their way along the narrow path of their daily lives, and owing to the anxiety of making the almighty dollar, or by advertising and practising some quack remedy, thereby degrading the profession, their attention is not directed to the slow but continuous progress of the science. They only see the change, after it has shifted, by the practice of others; and by the time they become proficient in that change, science and advancement has effected another alteration. Hence the man who lives only in the past and looks not to the future, cannot have a clear and complete understanding of that past. Such men are incompatible with quick alterations, and work empirically and by routine, which accounts for their slow progress in their profession.

I wish to confine myself more particularly to that branch of our profession pertaining to the very important use of antiseptics. It is a fact beyond all question, that there exists a number of micro-parasites which, when they enter into the body, will cause inflammation and suppuration. When these microbes have once entered the body it is our aim to kill them, and this is no easy task after they have become a resident of any part of the human frame. There is an old saying, and a true one, "An ounce of prevention is worth a pound of cure." So it must be our aim to prevent the microbes from entering the body, and more particularly that part which we as dental surgeons operate upon. These microbes exist everywhere—on our clothing, hands, instruments, and in the air—therefore it is very necessary for us to operate, dress, and have our instruments under the most careful antiseptic precautions.

Dr. W. D. Miller, in a recent article, says: "There is no department of surgery in which the demand for antiseptic procedure is more urgent than in dentistry, for the reason that all of our operations are performed upon septic or infected tissues, and we have no means of rendering the territory to be operated upon aseptic except by the use of antiseptics of the highest character. We cannot extract a tooth, cleanse the canal of a pulpless tooth, excavate a cavity of decay, or lance the gums, we cannot even touch any point in the oral cavity without our instruments becoming coated with a layer of infectious material. We are therefore bound to use antiseptics, not only for the purpose of disinfecting the already infected tissues, but for sterilizing our instruments, to avoid the transmission of infectious matter from one patient to another. The necessity for absolute cleanliness on the part of the dentist—of his hands, as well as his instruments, napkins, drinking glasses, rubber-dam, in short, everything which comes in contact with the patient's mouth—is universally recognized; at least, there can be no one who has the courage to express a contrary opinion. We can never know what virus may be clinging to our instruments,

nor can we with certainty predict the result of a wound upon the gums, cheeks or lips with an unclean instrument."

The dental office and surroundings should present as neat and clean an appearance as possible. The floor of the operating-room should be polished hardwood or linoleum, and should be washed every morning. The operating-chair requires great care to keep perfectly clean. The head-rest should be covered with a clean napkin for every patient; the cuspidor should be cleansed antiseptically after every operation. We sometimes see in dental offices the cuspidor in such a condition that it is not only a receptacle for microbes, but an object of disgust to the patient. No dentist can be too careful as regards the antiseptic care of his instruments. Many a disease is communicated from one patient to another by the filthy condition of dental instruments.

The instruments required should be thoroughly cleansed before and after each operation, in a 5 per cent. carbolic solution. When the dentist is required to perform an operation with the knife, great care should be exercised in having the place to be operated upon and his instruments thoroughly clean. To remove the blood, small wads of sterilized cotton or gauze, which have been soaked in a 5 per cent. carbolic, should be used. After the operation, peroxide of hydrogen should be used, as it destroys any pus which may be there and it prevents the decomposition of the blood and serum, or a 2 to 3 per cent. carbolic solution may be used, as it kills or renders inert any microbes that may be in the wound.

The operator's personal appearance should be clean and tidy. He should wash his hands with soap and disinfect them in a 2 per cent. carbolic solution or in a $\frac{1}{2}$ per cent. sublimate solution. His usual coat should be removed and a clean operating one put on.

If these suggestions are carried out, the patients will soon learn the virtue of antiseptics, and will sit down for an operation with the assurance that everything is clean and that they have a dentist who operates antiseptically.

The antiseptic treatment of dental caries varies according to the condition of the tooth. In cases where the dental pulp is alive, the dentist is sometimes compelled to leave a little softened dentine over it. Where there is nearly an exposure, and in such cases where it is filled without being disinfected, the microbes covered in by the filling will produce products that will destroy the pulp, or they may penetrate the pulp and cause it to die; hence the chief cause of trouble with teeth after they are filled. It is very essential that these cavities should be disinfected before they are filled, and in doing so the dentist should be careful not to use a coagulant (such as carbolic acid) to seal the septic matter within the tooth, or by coagulating the albumen, but should use an antiseptic which will penetrate in the presence of albumen; and among the most potent agents which will accomplish this is the oil of cassia.

In opening a pulp-canal containing a devitalized pulp-tissue, great care should be exercised to cleanse, disinfect and render it aseptic before filling ; and in order to accomplish this it must be thoroughly cleansed with peroxide of hydrogen, using a syringe to prevent septic matter being forced through the foramen. After the canal has been thoroughly dried of the peroxide of hydrogen by means of a hot-air syringe, an application of the bichloride of mercury is made, and the canal will be rendered permanently aseptic. When alveolar abscess exists as the result of a devitalized pulp, similar treatment is indicated, but should be repeated until all signs of the abscess have disappeared. In cases where the pulp-canal has been destroyed by therapeutic remedies, the treatment consists in cleansing, disinfecting and filling pulp-canals.

In conclusion, the subject of antiseptics can by no means be exhausted in so short a paper, but the outcome of perfect cleanliness and antiseptic precaution, will be the confidence of the patient, and the satisfaction of the operator, in knowing he has prevented some of the "ills flesh is heir to" and discharged his duty as a painstaking dentist.

ONE METHOD OF DOING IT.

By F. WOODBURY, D.D.S., Halifax, Nova Scotia.

Perhaps "pulpless" teeth are treated in a greater variety of ways than any other lesion that claims the attention of the dental surgeon. All sorts are found, from the primitive "wad" of cotton and creosote, to the most elaborate system of measurement, reaming, and sterilization of the pulp chamber, and a mixture of the rational and nonsensical exists between these extremes.

It is not my purpose to arraign any system, or lack of system, of root filling. It matters little what material is used, if it securely closes the apical foramen, and closes it at the proper place, viz., the apex. A class of pulpless teeth is constantly being treated, with large openings at the apex. These are found in the mouths of young persons, before the teeth are completely developed, and in adults where the foramen has been enlarged by the presence of an abscess, or from other causes. It would be far from the truth to say that these are among the most unsatisfactory cases ordinarily met with. After our best treatment and manipulation have been put into the case, we find that annoying, persistent soreness to the touch, slight puffing of the gum over the root, that abscess recurring which we thought destroyed, discharging a little pus under pressure. Some one or more of these conditions, with perhaps others more or less aggravating, are calculated to keep us humble.

There are many causes at work which bring about these unfavorable conditions. (Often they are beyond control.) Among them we find two, which are usually present in this class of cases, where moderately satisfactory results are not secured, viz., failure to bring about a thoroughly antiseptic condition of the parts, and failure to plug the root to the apex.

A good deal of difference is experienced in presenting the following "One method of doing it," for doubtless others have pursued the same course and will deem the particulars given as needlessly minute, but this is designed to be exact enough in directions to prevent any person who chooses to try it from wasting time in guessing what is meant. This is no universal cure-all. It works where it is indicated, like every other treatment or appliance. The great variety of cases, many of them unique in some particular, are constantly taxing the ingenuity of the conscientious and careful operator, and a suggestion is helpful. Some one will say, these are the most simple cases. Not always. We know that some of the most perplexing and annoying of these occur in the six anterior teeth, with straight roots. It is these to which I shall refer, although the same course may be pursued in any tooth with straight roots. Given one of the six anterior teeth, we have a straight away opening through the apical foramen of proportions that render it perplexing—a good large opening. Our treatment of the parts is complete and the tooth needs plugging at the apex. We know the consequences of failure to make a complete filling up there in the dark. Proceed as follows: Secure an opening in the crown of the tooth in line with the pulp canal, either by drilling away enamel on the inner wall of the cavity or making a new opening on the lingual surface. Measure the length of the tooth with a hooked nerve broach and mark the length on the end of a card. Have it exact. Write on this the name of the patient and the tooth. Select a Gates-Glidden nerve canal drill, a little larger than the apical opening. Mark the length of the root on the shaft and carefully drive your engine, allowing the point to go through the apex slowly, so that the canal at the end may be smoothly reamed, and the parts not unnecessarily wounded. In doing this withdraw the point often, so that when it passes through it will not carry a mass of debris with it. Stick the drill just used in the marked card so that it will not be mixed with others; select another, one or two sizes larger, and after marking the shank as before pass it up to the mark or within a hair's breadth of it. The point of the drill will thus be just at the apex, but being spear-shaped the cutting part will be a half-line, or perhaps a little more, short of the end of the root. This gives a cone socket-shaped canal. Stick this drill also in the card. You can now finish the operation or further disinfect, as the case may indicate. In this

case the chair will be rotated so the light will fall pleasantly over the shoulder, and the patient supplied with a recent magazine, while the operator and card will retire to the laboratory. Here is found a small slab of ivory or bone about a quarter of an inch thick. A hole is drilled through it, it is then reamed out by the smaller nerve drill in the card, then the larger one is introduced, until the point is seen level with the under side of the bone slab. Thus is found in the bone the same shaped canal as we have in the tooth. A strip of pure black tin, a little longer than the tooth, is then filed up to about the size of the large drill. It is grasped by a pair of flat-nosed pliers and gently forced through the bone slab by rotating, when through make the end round and smooth. Measure the length of the root on the tin from the card, and place it in the root, and if the measurements have been made correctly it will go to its cone-socket seat tightly and firmly. It can go no further, and there is no reason why it should not fill the apex and be smooth. If desirable to test it before finally filling the tooth, cut off the tin just inside the cavity and fill the crown with gutta percha, but leave the tin long enough to be reached with spring pliers. When the time comes to finish, remove the tin plug, cut it off about three-sixteenths of an inch long, thoroughly disinfect, and dry the cavity and pin, and carry it to its home with any flat faced instrument large enough not to slip by it on the way up, then gently tap it to its place. The operation may be finished in any way deemed best.

The nerve drills should be dipped in campho-phenique, or some other good disinfectant while drilling. This is important as a matter of cleanliness, and it makes the chips stick to and come out on the drill, instead of being pushed through the apex.

Originality is not claimed for this treatment, but I have not seen exactly this described before. It has certainly been very successful in my hands, and is hereby communicated for what it may be worth.

"TAKING COLD" AFTER EXTRACTION.

By A. H. BEERS, M.D., D.D.S., L.D.S., Cookshire, Que.

It is not an uncommon occurrence for patients to complain of pain, swelling, and other symptoms of inflammation, after having teeth extracted. We find the tissues about the socket congested and swollen, and often see a sloughing condition present. A great many people attribute this condition to having "caught cold" in the socket of the tooth extracted. Notwithstanding the great precautions that may be taken by the patient, such as wrapping the head

up in numerous shawls and handkerchiefs "to keep the cold out," and this occasionally in mild weather, they will positively state that they have somehow managed to "catch cold." It is an almost useless task with the average rural patients, to explain to them, and differentiate between the different kinds of toothache. Where the existing odontalgia is caused by the form of dental disease known as periodontitis, there will generally be some signs of more or less severe inflammation in and about the socket of the tooth after extraction. We often see inflammatory signs on the mucous membrane analogous to erythematous inflammation on external parts. Cold may cause inflammation, but the more common causes of this trouble after extraction are probably due to disease of parts comprising the socket of the tooth, and very generally a filthy and neglected state of the mouth. When we consider the presence of millions of micro-organisms in the mouth, it is a wonder that there is not more trouble resulting from wounds therein, although wounds on healthy mucous membrane heal more rapidly than external ones.

Prophylactic treatment will avert or lessen the disturbance. After extracting teeth showing signs of root or periosteal trouble, the socket should be well syringed with some warm antiseptic solution and bleeding encouraged, as this will lessen the congestion. A plug of cotton, wool, or any other substance should not be left in the socket, as this retards healing. Of course this would not apply to treatment of excessive hæmorrhage. A mouth wash may be prescribed to be used frequently, especially during the first couple of days after extraction. An efficient and pleasant wash is as follows :

R. Listerine,
 Glycerine..... āā ȝ i.
 Aq. Rosæ(ad) ȝ viii.

M. et ft. lotion. Sig. Rinse the mouth out with a wineglassful several times a day.

If there is great swelling, cold applications externally are in order. Pain can be lessened by washing out the socket with warm water and putting in a piece of cotton, soaked in tinct. opii with chloroform and oil of cloves, and leaving it there for an hour or two. I find that if the patient keeps the mouth clean, and uses some antiseptic wash, such as listerine, borine, or euthymol, that there will usually be very little bother in healing. Dirty instruments may cause different kinds of infection, and filthy, careless dentistry will certainly augment any inflammatory trouble. Various local septic diseases, such as erysipelas, phagedena, etc., may be caused. Healing may be retarded by mechanical irritation, such as is caused by the presence of small fractured pieces of the alveolus. These, if

easily got at, should be removed sooner than allowed to "work out." Irritating lotions may interfere with the healing process. Pyogenic cocci may flourish in the mould. These are powerful peptonizing agents and bring about liquefaction of albuminous substances. The blood clot may disappear, and the tissues forming the surface of the wound become liquefied. Tissues, if vigorous and healthy, may resist successfully the attack of micro-organisms. If the tissues have been much bruised their vitality is certainly impaired.

Diminishing the number of micro-organisms by being cleanly with instruments, and keeping the wound clean, will lessen severity of inflammation, as effects of organisms greatly depend on their numbers. Irritating so-called local anæsthetics, very often produce inflammatory effects. It is practically impossible to altogether exclude micro-organisms from mucous cavities, but we can minimize their action. If granulations become excessive they can be touched with silver nitrate, or copper sulphate. If they become weak and œdematous, some stimulating lotion, as alum, or zinc sulphate—two to four grains to the ounce of water—may be used.

Translations

FROM GERMAN DENTAL JOURNALS.

By CARL E. KLOTZ, L.D.S., St. Catharines, Ont.

ALVEOLAR SARCOMA OF THE SOFT PALATE.—A child twelve years of age was brought to Dr. A. Schmidt, who had had during eighteen months previous a small swelling, about the size of a pea, on the palate removed several times, but always a short time after recurred. Dr. Schmidt found on the left half of the soft palate an arrow-shaped swelling, two cm. long, one and a half cm. wide, and one-half cm. high, very deep red in color and with a plainly described surface, which had a glazed appearance, and which seemed to him like highly hyperæmic mucous membrane, and bled at the slightest touch. The surroundings appeared normal, perhaps a little firmer than the opposite side. Rhinoplastic the nasal cavity did not appear to be affected, nor were the lymphatic glands swollen. In the removal of the swelling it was seen that it had diffused into the loose tissues and muscles of the soft palate. The submucous expansion was about three times the size of its outer surface. A large piece of the mucous lining of the nose had to be

cut away. To cover the defect or wound, which was of the size of a twenty-five cent piece, the mucous lining of the soft palate and the greater part of the hard palate had to be made movable by the Langenbeck operation on the left alveolar margin. Recovery uninterrupted. Microscopical examination showed accumulations of large epitheloid cells, separated by tender walls of connective tissue. This structure is characteristic to alveolar sarcoma. Up to date the author could not find a report of a similar case in medicine or dental literature.

ALLEVIATION OF PAIN AFTER EXTRACTION.—Amyl nitrite has been recommended by a number of authorities as a specific for the alleviation of pain after extraction. The patient inhales it for from three to four seconds and then remains quiet in the chair for at least five minutes. It is not only used after ordinary extracting, or after narcosis, but also after using a local anæsthetic. One drop of a one per cent. solution of nitro-glycerine in a wineglassful of water has likewise been recommended and used for the same purpose. Both remedies have been used successfully in neuralgia and for headache; they are also used for patients with affections of the heart, who are afraid of a dental operation for fear of a cessation of the action of the heart. Amyl nitrite and nitro-glycerine (Glonoin) should be in every dentist's cabinet.—*Zahnärztliches Wochenblatt*.

COMPLETE ANÆSTHESIA PRODUCED BY THE APPLICATION OF A LOCAL ANÆSTHETIC.—Two cases given by Dr. H. Carlson, of Gothenburg. A young lady of about eighteen years of age came to my office to have a first upper molar extracted. As she desired a local anæsthetic, I injected æthylchloride, and the tooth was very easily extracted. Immediately after the extraction I noticed that the patient was completely anæsthetized, but regained consciousness in a very few moments. After questioning her, she stated that she had been anæsthetized before on one occasion with bromethyl for the extraction of a tooth, and the second time with chloroform for a surgical operation. In the operation of extracting the above molar, she said that as soon as she began to become unconscious she did not experience that feeling of suffocation nor difficulty in breathing, and that this anæsthesia was much more pleasant than the former. Patient did not experience any pain in extracting. After bleeding ceased, she remained in the office about an hour and showed no symptoms of nausea, dizziness nor headache and was in good spirits the next day. Patient was of a lively and jolly disposition, had a good constitution and very healthy. The next day she came to have another tooth extracted and asked to have the same local anæsthetic used, which was done, but this time without producing complete anæsthesia as the day

previous. The second case was that of a boy of fourteen years of age, under the very same circumstances as the first, only that this patient was very weak and anæmic. In both cases anæsthesia was produced by the inhalation of the gas of the æthylchloride, by breathing it through the mouth, although I always instruct the patients to breath through the nose when I use this local anæsthetic, but it cannot always be prevented. That æthylchloride is not an absolutely harmless remedy is proven by these two cases, but the great and good results that have been attained by its use have induced me to use it in my practice daily, but certainly with every precaution. I think that the danger is minimized by the napkins used in keeping the parts dry, as they in a great measure prevent the penetration of the gas. I have heard it stated by practitioners that, to some patients, it is more painful to apply the anæsthetic than to extract a tooth without it; this, I think, is only when the æthylchloride is brought into contact with an exposed pulp, which is certainly very painful. In such cases I cover the pulp and sometimes the whole tooth with wax. A good method to reduce the unpleasant sensation of applying the anæsthetic is to brush the gum with a little shellac dissolved in alcohol.—*Correspondenz Blatt. für Zahnärzte.*

FROM THE FRENCH JOURNALS.

By J. H. BOURDON, D.D.S., Montreal.

To prevent nausea when taking an impression, get the patient to inhale spirits of camphor before and during the operation.—*Zahntesch. Reform Progres Dentaire.*

CARE OF TEETH DURING PREGNANCY.—Genital complaints of woman take effect on the dental system. Affections of the pulp and gums are frequently met with in pregnancy. The thought that we have to leave those affections without care may have been sanctioned by the doctors themselves, but Dr. Kovaes, in the *Pest. Med. Chir. Presse*, protests against this theory. We can open abscesses and extract teeth without fear of interrupting pregnancy. On the contrary, the treatment of dental affections during pregnancy will permit women to feed conveniently. Conditions that act during pregnancy to impair the teeth are direct or indirect. These are analogous to those found in chlorosis; besides, pregnancy produces towards the bones and teeth certain alterations. Such as in chlorosis, pregnancy will act on the constitution of

teeth brought by digestive troubles, accompanied by acid secretions that will attack the enamel and dentine. Once decay has commenced, being generally soft, it will cause pain, leading the patient to neglect the care of her mouth, inasmuch as it will aggravate the trouble. The easy way by which teeth are involved is explained by the fact, that pregnancy will bring decalcification to the benefit of the foetus(?). Kovaes thinks that in the second period of pregnancy special care should be given to the teeth, and gives the following advice: Pregnant women should have their teeth examined every three months, in order to arrest any decay that might appear. Absorb calcareous, drink calcareous waters, cleanse the mouth morning and evening, avoid acidulous antiseptics; brush the teeth up and down. If brushing the teeth should cause vomiting, the mouth should be rinsed with a light solution of chlorate of potash, thymol, saccharine, boracic acid, etc. After an acidulous vomiting the mouth should be rinsed with an alkaline solution.—*Dr. Soma Kovaes, France Medicale Progres Dentaire.*

AN ASIATIC HABIT.—I passed the last season in Crimea, the population being composed of Tartars, Karaimes and Tziganes, whose manners and customs are in a primitive state. According to their religion, the Tartars must consult the doctors; will admit as an exception, exterior treatment, such as massage, friction, etc. Naturally the dentist is unknown to them; nevertheless I was astonished to see such fine teeth, two rows of them would shine upon those Asiatic faces. When taking professional information, I observed a habit, especially among women, of chewing a white substance. This was an interesting fact. The substance was "gummi mastica"; an addition of white wax gave it a slimy consistence. This fact is also observed equally in Siberia; nevertheless, as Crimea and Siberia are far apart to the outmost of Russia, they include different nations. But from Faïmenoff, the health of the teeth is due to the use of chewing a kind of mastic and tar called sulphur. This popular ingredient is found everywhere. All Siberian women, peasant, lady of quality, children from the age of two years, indulge in the habit of using this mastic. The result of masticating this substance will, by its use, develop the maxillary teeth, and cleanse them as if using a dentrifice. A proof of the productive effects of this mastication, is that dental caries are of rare occurrence in childhood and in youth, except in institutions, where the children of the wealthy people are kept, who are forbidden to use this mastic, it being a vulgar habit.—*By M. S. Broussilowsky, D.E.D.P., L'Odontologie.*

DENTAL HAIR-DRESSER.—This summer a clerk went to a barber-shop in Rostaw. While there a tooth caused him excruciating pain. The barber proposed to him to have it extracted;

to which the young man consented. The would-be operator attempted the extraction with the key of Garengot, when the patient died suddenly. Autopsy proved that death was caused by a cardiac aneurism. Bad luck.—*M. S. Broussilowsky, D.E.D.P., L'Odontologie.*

MERCURIAL POISONING.—Mr. Albert, of Vienna, has described to the Royal Imperial Society of Doctors of Vienna a remarkable case of personal poisoning by mercury. He was troubled with gastritis very intensely, and sustained the loss of three teeth, apparently sound, the nails becoming soft. Had urine analyzed; it contained a notable quantity of iodide of mercury. He imputes his gastric troubles to the use of a solution of sublimate, usually employed in his operations.—*Bulletin Medical L'Odontologie.*

Correspondence

THE TITLE OF "DOCTOR" IN DENTISTRY.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—I have before me, as I write, your editorial in the February, 1894, issue, wherein you not only reiterate the objections you have always held to the use of this title by dentists who do not possess a medical degree, but you suggest to the National Association of Dental Faculties, and the dental colleges generally, the invention of some other title which would be its equivalent, and which, under the improved professional government of the profession in the United States, could not have the stigma attached to it which everybody knows is attached, and must always remain attached to the D.D.S. as given indiscriminately years ago. I admit that this hereditary reproach cannot disappear, until every man who received the D.D.S. under those old and now obsolete rules is dead. But we must let the past bury the past. The profession to-day is no more responsible for the irregularities of the old *regime*, than you or I may be for the sins—if they had any—of our grandfathers. It is too late to obliterate a title which, as you have shown yourself, was granted last year in the United States alone, under the improved and unobjectionable regulations, to no less than 1,243 candidates, while there were 5,366 matriculates.

You will observe, in the reply sent to one of the Post-card Dots in this issue, that the medical profession has no priority of claim in the use of the title of "Doctor." If the dentists infringed this

claim of medicine when the Baltimore Dental College adopted it sixty years ago, the physicians infringed it when they adopted it without leave or license from its original creators, the lawyers. That argument of priority will not hold water to-day. Moreover, if it is recognized as a title worthy of being conferred upon the veterinarians, who confine themselves to the diseases of cattle and domestic animals, it is surely worthy of bestowal upon the dentists, who treat an important part of the human body, and whose curriculum embraces not only most of the primary studies, but the entire pathological and surgical departments which the general surgeon and physician have long ago abandoned to the dentist, both in the college curriculum and in practice. You argued that the oculists and aurists take the full medical course. But you must remember, that it is within the memory of young men when this became a specialty in Canada; and I go so far as to deny that if the oculists and aurists confine themselves to this specialty, as the dentists confine themselves to the teeth, there is no more use, direct or indirect, of the chief subjects of the final year in medicine to the one specialist more than the other. Why should a student who intends to give the public service exclusively in the dental organs, be compelled to spend six or seven years to become a dentist, when he is not asked to spend more than four to become a physician and a surgeon? And if within the four years a dental student takes the necessary primary course in connection with the medical classes of a reputable university, receiving the same instruction by the same professors at the same time and place, with the medical students, and at the end passing with them the same examinations, why should it not be recognized as a full equivalent to the work of the medical student if he has in addition to take two complete courses in a reputable dental college, taught by dentists, examined by dentists, and passed by dentists? No honorable physician to-day would have the presumption to pretend, that the education received in the best of medical schools to-day qualifies him to pose as a didactic, much less a clinical, lecturer on dental pathology, materia medica and therapeutics, dental surgery, or even dental anæsthetics, so far as the uses of nitrous oxide and other specially dental anæsthetics are concerned. Professors of these branches are not made to order out of the desultory reading of dental text-books. Dental anatomy and physiology cannot possibly be sufficiently taught by teachers who, in order to prepare for the duty, have to get their first and only knowledge from dental text-books, because there is no purely medical text-book in existence, which pretends even to skim the surface of these subjects.

The dental student to-day who covers and conquers the curriculum of the reputable dental colleges, receives no "major degree" in

the "Doctor" of Dental Surgery for a "minor qualification." His qualifications to practice his profession are not only fully up to the standard of those of the student who has to practice medicine, but his clinical qualifications are infinitely superior, simply because he has a hundred opportunities to perform operative and mechanical work upon the teeth, to the one which the medical student can possibly enjoy, during his four years' course in any medical school in the world. The business in life of the dentist is to save or replace the teeth. The diseases of the teeth are few. The opportunities for practice are present in the mouths of almost every citizen, well or ill. Decay of the teeth is the most prevalent disease in existence. At a glance, anyone can see, that when the dental student becomes a D.D.S. he has received a major qualification, and, all things being equal, is infinitely more equipped to tackle the diseases of the teeth, than the medical student who becomes an M.D. is equipped practically, to treat the many diseases of the body which were embraced in his curriculum. The University of Toronto recognized this fully ; so have twenty-nine universities in the United States. The dental students of Ontario and Quebec to-day, pass a matriculation examination fully up to the standard of that required for entrance to the study of medicine. The term of study is longer, because it embraces three or four years of twelve months each—the time that is not passed in college being passed in daily practice in the office of the dentist.

As I remarked before, it is too late to obliterate the D.D.S. It would also be a gross injustice. Dentistry is now recognized as a distinct and separate profession, and while I agree with you that a full medical and surgical course would add to the general and special knowledge of the dentist, and enable him to go beyond the bounds of purely dental practice, the interests of the profession and the public whom we serve demand, that we develop and improve the special theoretical and practical studies which pertain to the treatment of the teeth and their adjacent structures, embraced in the curriculum to-day of the D.D.S., as demanded by the National Association of Dental Faculties.

Yours,

B.

[Since the above was written, the "Dental College of the Province of Quebec" has been affiliated to the University of Bishop's College, for the purpose of obtaining the degree of D.D.S. Full particulars will appear in the February issue.—ED. D.D.J.]

Reviews

The Diseases of Children's Teeth, their Prevention and Treatment.

By R. DENISON PEDLEY, M.R.C.S., L.D.S. England. Illustrated.
London, Eng.: I. P. Segg & Co., 289 Regent Street W. Philadelphia: The S. S. White Co. Pp. 268.

The chief object the writer has in view in this work, is to educate medical practitioners in the knowledge of the diseases of the teeth. The necessity for this has more practical significance in England than in America, as medical men on this continent have long ago resigned these diseases to the dentist. And yet it must be admitted, that if the medical practitioner could be induced to return, theoretically at least, to this abandoned branch of medicine and surgery, in so far as to take an intelligent interest in the early development, the functions and the care of the teeth, it would be a great boon to the public, and an advantage to the general practitioner himself. It would no doubt surprise the average medical man, to realize the progress made in the knowledge and treatment in dental pathology, and would add materially to the respect which should exist towards the educated dentist, if the physician were able to diagnose, if not to treat, the many oral affections which come within the sphere of the dentist, and which are so frequently the direct cause of severe and often of serious constitutional derangements. After two chapters dealing with the structure and eruption of the teeth, the author discusses the etiology of caries, recognizing the dependence of this disease upon the presence of micro-organisms; repudiating the "vital" or inflammatory theory; yet not devoting sufficient attention to the constitutional causes which are most likely to come under the attention of the family physician. Palpitis and the diseases of the periodontal membrane, necrosis and other sequelæ, are discussed in a manner to awaken thought and conviction on the part of medical practitioners. Quite a large part of the work is devoted to the irregularities of the teeth, while the chapter on "The Hygiene of the Mouth, and Treatment," affords many valuable and practical hints. Of late years a great deal of attention has been paid by the teachers in dental schools to the connection of the teeth with various constitutional diseases. The author has not overlooked this important connection. We heartily recommend this work to students and practitioners, both of dentistry and medicine.

Saturday Night, Toronto. One of the very best weekly papers of its stamp on the continent. The editorials of its editor are as classical as convincing.

Dominion Dental Journal

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VOL. VIII.]

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[No. 1

THE PRESS—A FOE AND A FRIEND.

The medical and dental professions agree to ignore the advertising fabrications of the quack and impostor. They stand helpless and discouraged in the face of the enemy, passing futile resolutions on ethics, and making feeble protests of disgust. It is a question if it would not be more in the interest of the professions and the public, to carry the war into Africa, and declare one of aggression on the charlatanism which the public press—even the religious papers—do so much to promote.

In the best educated communities to-day we observe a susceptibility to imposture, which cannot be surpassed by the credulity of the backwoods *gobe-mouche*. Educated people will swallow lies and pills together, with the ignorant faith of pilgrims to Ste. Anne, and even when the effects are not what they expected, their faith in falsehood is intensified, rather than chilled. It is no surprise to find this mental condition greatly enhanced, by the indisputable and frequently inexplicable fact, that people whose faith has risen to fever heat, have had miracles performed upon them by the use of bread pills, as well as by their belief in the collateral efficacy of the

marble figure of a saint. The influence of the emotions upon the involuntary muscles and the organic functions; the influence of certain mental states upon disorders of sensation, motion and the organic functions, are physiological facts, which the exposure of imposture cannot weaken. We do not wish to discuss this subject in any of its bearings upon religious belief or custom, and yet fraud has been repeatedly proven in this very connection. Our business is to let the public go to Heaven by any route they may please; but equally to protect them while they are here, from the dangerous impostors, who not only have license to cry their gilded pills in the streets, but who to-day enjoy the prestige which the daily press bestows upon them as regular and profitable advertisers. The question occurs, "Why are so many of the well-educated, as well as of the ignorant, so easily deceived by medical and dental charlatanism?" There can be no doubt that the daily and weekly press is chiefly responsible. "To lie like a dentist," was once a proverb in France, in the days when the extraction of teeth was the principal duty of the operator. In our time it may have a much wider application—"To lie like the press." The functions of the press to-day seem to combine the incongruous editorial censure of principles and actions, which in the next column enjoy advertised homage! The function of a responsible press is to protect the public from all sorts of fraud and imposture. But in one responsible column, we may read indignant anathema against public indifference to sanitary law, against public neglect of the laws of health, against public indifference to higher education in the medical and dental professions; while side by side, in the columns for which the editor states he is "not responsible," but which the publisher cannot repudiate, we find highly colored and illustrated approbation of quack medicines, of quack doctors, and quack dentists, who are permitted to lie most lavishly at ten cents a line! The charlatan who would be kicked out of the editor's sanctum is welcomed in that of the publisher! This Janus-sort of arrangement enables the publisher to stick to his "principles" in one room, and back out of them in the other; to maintain these principles in one column, and retain his profits in the other. It is a curious illustration of the principle upon which the newspaper press is now conducted, that the most shameful humbug in medicine and dentistry, even that which has been proved to be of serious detriment to public health and morals, can find the most conspicuous admission to its columns, provided it is paid for as advertising! That publishers are *particeps criminis* there can be no question, unless they voluntarily admit, that the function of the press is to protect the public from fraud and imposture, *only if it pays*; that the drunkard-maker, who is licensed to ruin the souls and bodies of our young men—and who

faithfully keeps his contract!—can use the press for his purpose, *if he pays for it.*

Once upon a time the medical and dental impostor, and the miserable brute who makes drunkards, could not advertise outside of the legitimate advertising columns. But now we see them ingeniously sandwiched between religious and other respectable advertisements. If the press to-day is the editorial guardian of public morals, it is frequently the advertising abettor of public shame.

It is not hard to explain why there are so many gullible people in a community where the press is conducted upon such principles. We have, in years gone by, advocated fair and open warfare against all impostures, putting to public and professional test the pretensions of the physicians and dentists who profess to perform miracles on dead bones; the use of the schools, of the rostrum, and of the press, to expose these ever-flowing fabrications. The public get no ken from lights hidden under bushels. Quacks, like thieves, hate the light. Do we not do injustice to the public as well as the profession, in giving these rascals their own undisputed way?

THE SILENT MEMBERS.

We are not all gifted with the power of expression by tongue or pen, and many of the best men in our ranks are those who think with Cato, that "The post of honor is the private station." To get men of action who are also men of thought; active workers who are wise thinkers, courage with discretion, scrupulous truth-tellers with broad-minded charity—surely these be characteristics which should commend their owners to public and professional consideration. Official life is apt to reveal the lowest characteristics, especially in the Province of Quebec, where intrigue has become a part of political science, and duplicity never a reproach unless it is discovered. Do the best the best men can do, and unless they can defeat the strategy of the intriguer, by that straightforward honesty which sometimes puts the crafty to rout, underhand intrigue becomes like one of the statutes of the land—a thing to be defended however much it may be assailed. A great duty lies within the scope of the quiet and unobtrusive men, who, because they are never heard from, fancy they have no influence. There are many who have never attended the meetings of the associations. They hate to talk, and they hate even to listen—

especially to the sort of talk which sometimes makes our gatherings unpleasant and unprofitable. The very presence of these honest men, even if they are silent, is influential. It is not the active men in the societies who always do the best service. Most of them do the best they can, and many of them would gladly serve rather than rule. There are a large number of dentists from Newfoundland to British Columbia, who should try the experiment of using their pens, even if they are shy of using their tongues. The amount of unwritten practical material of value in the possession of these quiet practitioners is incalculable.

THE DEGREE OF D.D.S. IN QUEBEC.

We have only space to state, that an honorable compromise for affiliation of the Dental College of the Province of Quebec to the University of Bishop's College, has been made, for the purpose of obtaining the degree of Doctor of Dental Surgery. The French University of Laval was not prepared to offer affiliation upon any terms. McGill offered to pitchfork to the profession a valueless and meaningless title, with inferior social and professional relations, which a body of hostlers would not accept. The affiliation with Bishop's will meet the requirements of the dentists fully. We shall give further particulars in our next issue.

TO PREVENT VOMITING AFTER THE USE OF CHLOROFORM.

The *New York Medical Journal* comments editorially upon the method adopted by M. Lewin (*Revue de Chirurgie*) to prevent vomiting after chloroform amæsthesia. In 125 cases there was complete success, in forty-nine there was slight vomiting. M. Lewin considers it very dangerous to use pure chloroform, and recommends that it should contain a certain quantity of alcohol, which renders its decomposition during narcosis more difficult. The method of application consists in saturating a small towel with vinegar, placing it on the patient's face, over the mask, which is afterwards carefully withdrawn, care being taken not to allow the air to gain access to the face too suddenly, for it ought to pass through the small towel before being inhaled. The cloth must be kept on for three hours at least; if removed too soon nausea will set in. Fresh towels thus saturated may be put over the first one

before the latter is drawn away, in order to prevent the air from touching the face. Chloroform is eliminated almost exclusively through the lungs, partly as free chloroform and partly as formic acid and chlorine. The chlorine irritates the larynx and the trachea, and this is one of the chief causes of vomiting. When the cloth with vinegar is held over the nostril, the chlorine combines with the acetic acid as fast as it is evolved, and forms trichloroacetic acid.

THE PROFESSIONAL KICKERS.

There are a number of men in our profession in Ontario and Quebec, who should organize a society for the purpose of kicking each other. For many years they have done the grumbling and the criticizing, but they have never done anything else—excepting mischief. They constitute an element, ready at any time to support one another in any resistance to educational reform, and will even travel at their own expense to Toronto or Quebec, to lie and lobby among their legislative friends. Legitimate opposition is our birthright. We are all born rebels against something or other. But we never hit below the belt, or intrigue in the dark, or deliberately lie, to achieve our aims. The errors which are common to humanity frequently are committed; but not by any underhand trickery. Yet it has been repeatedly observed, that here and there in our profession we have a number of schemers, who play the part of the dog in the manger, and play it in a way that the meanest cur would never attempt. They should each get a medal. They should each organize a society with a big-sounding name, in which they would each be the chief high-cock-a-lorum. They should each take turns in kicking each other, for they have failed to kick anyone else.

VERMONT STATE DENTAL SOCIETY, ETC.

On account of press of matter we have to defer until next number particulars of the forthcoming annual meeting in Montreal, the organization of the Ottawa Dental Association, report of the Nova Scotia Dental Society, etc.

EACH PROVINCE REPRESENTED.

Original articles appear in this issue from the different Provinces of Canada.

POST-CARD DOTS.

"WHAT profession has priority in the use of the title of 'Doctor?'" The legal profession. The first person upon whom it was conferred was Irnerius, a Professor of Law, at the University of Bologna, in the twelfth century. He induced the Emperor Lothaire XI., whose chancellor he was, to create the title; and he himself was the first recipient of it. Subsequently, the title was borrowed by the Faculty of Theology, and first conferred by the University of Paris, on Peter Lombard, the celebrated scholastic theologian. William Gordenio was the first person upon whom the title of Doctor of Medicine was bestowed. He received it from the College at Asti, 1329.

"Is not the custom of using show-cases at the door, among some dentists in the Province of Quebec, contrary to the Code of Ethics and unprofessional?" When you are in Rome, you may have to do as the Romans do, even though it be against your "Code of Ethics." We certainly disapprove of the custom. Happily it is not as common as the use of the gilded pestle and mortar over the doors of many physicians in Quebec Province. Unfortunately, as there are a large percentage of the population who cannot read, it is regarded by these dentists and physicians as a necessary means of drawing attention to their occupation. We believe there is not a show-case used in any other of the seven provinces.

Otto Arnold, D.D.S., of Columbus, Ohio, in a paper, entitled "Alveolar Dental Hæmorrhages," read before the Tri-State Dental meeting, says: "My universal method of procedure in the management of hæmorrhage following tooth extraction is to have the patient rinse the mouth freely with hot water. This encourages free and uninterrupted bleeding from the wound, and stimulates a normal reaction in the tissues, soon followed by a natural cessation of the hæmorrhage. If any considerable amount of laceration has taken place, I attempt to replace the tissues by compressing with the fingers or stitching into apposition any pendant portion of the gum, prescribing as a dressing:

R Tannic acid gr. xx.
 Listerine,
 Aqua dist.ãã ʒ iv.

M. Sig.: Apply frequently to the wound."—(Extract from the October number of the *Dental Cosmos*.)

Dominion Dental Journal

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No. 2.

Original Communications

DENTAL ETHICS.—(CONCLUDED)

By R. J. READ, B.A., D.D.S., Athens, Ont.

Next let us consider our duties to the profession. In discussing this part of the subject, it is also necessary to keep in mind the conclusion to which we came in the former part of the treatise, namely, that the good of man consisted in the fulfilling of his capabilities; and also to remember, as it has been shown in the preceding pages, that the fulfilling of these capabilities is possible only to the extent that the opportunities for fulfilling them are afforded. The desires of a particular set of men must not be allowed to take precedence to the good of the community. To live together in harmony each one must respect the rights of the other. These rights are not respected if we prevent others in their endeavor to do their best. This best may be in the treatment of a patient whose teeth demand, we will say, cement fillings. We will suppose a case in which cement has been used, and the patient cautioned to return at stated intervals to have his teeth examined. The patient promises but does not keep his word. The fillings dissolve, with the consequent loss of tooth structure. The patient, perhaps from a sense of shame in having violated his word, perhaps on account of his removal to a distance, or for some other reason, visits another dentist. The latter informs him that all the trouble is due to the use of cement, whereas gold would have obviated the trouble. Much may be said and more hinted concerning the roguery of the practice of inserting such fillings. The patient is (we will suppose) finally convinced that the present dentist is very honest and very clever, and that the former dentist is very dishonest, very ignorant, and incapable of putting in a gold filling

These and kindred ideas are insinuated to the patient, without any special dentist being named, in such a manner as to assign to the dentist an ability superior to that possessed by the other members of the profession. No endeavor is made to ascertain the cause, or causes, which led to the use of cement as a filling material; rather the idea is inculcated that no cause but inability or greed would warrant its use. Here we have a case of manifest deceit upon the part of the dentist. This man is not fulfilling his capabilities; he is not educating the patient who has come to him. At the expense of the profession he thinks he is advancing his own interest. He is, indeed, injuring the profession, inasmuch as he conveys the idea that it is composed of many unworthy men. He is not advancing his own welfare, in so far as he teaches that he is one of a body of men that knows little of its profession. He is causing a retrograde in humanity, in so far as he causes a patient to leave his office with a doubtful idea of the ability of dentists. The patient will communicate his thoughts to others; these others will question the wisdom of trusting themselves to dentists. As a result, after much suffering, they will lose their teeth, impair their digestion, and thus unfit themselves for exercising their capacities to the utmost extent.

Now, on the other hand, what would be the probable result of the opposite course of conduct on the part of the dentist in relation to the dentist, to the profession, and to the patient? If the patient is told that the tooth requires another cement filling, or that a more durable one may now be put in, and also that he has neglected his teeth to a serious extent in not having them more promptly attended to, he will be convinced that he must blame himself for his loss. If in the course of the consultation the fact is elicited that the patient was warned to return for an examination of his teeth, then a very favorable opportunity is presented to impress upon the patient the necessity of paying due heed to the advice of the dentist. Will he think less of the dentist because the latter has pointed out to him in what respect he has been remiss in his duty; how he has failed to give the former operator an opportunity to do his best for his patient? On the contrary he will have much more respect for a profession that has attained to such perfection that the different members of it agree in their conclusions. After having received again the admonition to attend to his teeth, and having had a practical exemplification of the injury resulting from the failure to do so, he will be hereafter more intelligent, and in the ordinary course of events will impart his knowledge to others. He will impress upon them the necessity of avoiding the errors he made. Thus having fulfilled his functions, the dentist has increased the capabilities of the profession by educating the people to know what may be done for them, and

what their duty is to the dentist. Hence each dentist, in every near and remote part of the earth, by honorable conduct and by instructing his patients, will bring about those circumstances in which the capabilities of the profession may be increased.

Next let us turn our attention to the subject of advertising and discuss the results arising from false statements, claiming to do that which we do not, and be that which we are not. This is a state of affairs fraught with the most serious consequences to humanity, and consequently to the profession.

What shall be said of the dentist who advertises the best set of artificial teeth at such a price, that in order to obtain a mere existence so large a number of sets is rushed through that the work must be of a very inferior kind, and the finish most unseemly? Some one might suggest that such a one was performing a good service in so much as he was teaching the people, so unfortunate as to come under his care, to thoroughly understand the insufficiency of artificial dentures, and was thereby giving them a more lively sense of the necessity of preserving the natural teeth. This lesson is learned too late by the dupes, but their offspring may benefit thereby. Among the other objections to this argument is the fact that had these people patronized the advertiser for the purpose of preserving their teeth they would have had similarly disheartening results, and their children would be taught the folly of trying to preserve their teeth.

Now, what are we to learn from this? That the acts of unscrupulous men form a most serious obstacle to the progress of dentistry, and the diffusion of its blessings. The disastrous results of the acts of these men are further increased, because there are a class of people who, when they receive unsatisfactory services, blame the entire profession. The idea does not occur to them that there are differences in dentists—no, a dentist is a dentist. What a pity it is that such men cannot comprehend the wrong they are doing to their fellow-beings! If they do comprehend it, can they feel justified in gaining gold at the expense of the welfare of their fellowmen. Can they dare to reflect upon the results of their unworthy acts to those yet unborn? Is this mere theorizing? How gladly we might wish it were.

But how short-sighted a dentist must be not to perceive that this course of conduct is very injurious to himself. Can he hope that unsatisfactory work will bring him the means of cultivating his possibilities? He should know that if his operations are not adapted to these ends, his patients cannot be benefited, nor can they speak of his good services rendered to them. How does a man of this stamp recognize his good? All that can be said is that he does not recognize his duty to himself, to his profession, or to his patient.

From the foregoing it is evident that our duty to the profession is to do good work. How gratifying it is to know that our duties to ourselves, our duties to the profession, and our duties to our patients have the same goal—the good of mankind. The profession might well be discouraged at such a view of the results of this kind of advertising, were it not for the fact that there are in our ranks so many men who uphold the honor of the profession. No doubt the large majority of dentists do their best. Honesty is one of the most important duties we owe to the profession. We must do that which we promise to do, and not that only, but we must perform that which the patient should legitimately expect us to do.

Another subject that has commanded the attention of the profession for some time is that of patents. There are some who take the position that it is beneath the dignity of, and at variance with, the welfare of the profession to take out patents respecting dentistry; yet they would not be adverse to a professional man owning a patent on some article not related to the profession. Now how are we to approach this subject? What is to be our standard of ethics with regard to patents? Shall it be a monetary consideration, or shall we deem the praise of our fellowmen a sufficient offset to the pecuniary loss entailed? The question will arise, why should not dentists profit by the same brain force or chance that other people profit by? Are we essentially different from other people respecting our aims in life? It may be allowed that we deal essentially with human life, while, as a rule, others obtain patents only on articles that administer to comfort, and which are not, in the sense in which we are speaking, for the alleviation of human suffering. Yet a distinction of this kind is not sufficiently clear, because in some cases the line of demarcation between the two classes of patents would be hard to define. In all that we do we should be guided by the true aim of life, the fulfilling of our capabilities. At times we may be so blinded by our passions as to say, "Let each one do the best for himself." But if we wish to form true judgments on this subject we must constantly bear in mind the theory of the good of man. That mode of conduct which is at variance with such good is wrong. In order that men of ability may not be imposed upon, it is necessary that merit should be at a premium, otherwise the result of achieving much would be an excessive demand on their services. It is a law of our being, of our intellectual growth and development, that pre-eminence must have its reward. In the present stage of our intellectual advancement, the laws of our country—that is, the people—admit the advisability of offering a stimulus to man's inventive genius by protecting, for his advantage, the results of his labors. Doubtless this course of action has been pursued in order that mankind as a whole should benefit thereby; for it would be argued,

if no such protection was afforded to inventors, they might not be able to direct their energy in the direction of invention.

Some one may suggest that in taking this position we are at variance with the theory formerly advanced, that the good of man lies in the fulfilling of his capabilities. But not so, for the good of man is the fulfilling of his present capabilities, and it has already been pointed out that our capabilities are known only in so far as they are attained. What we may hereafter be, we cannot tell. Our abilities depend upon our surroundings, and as these change, so do our possibilities change. If the conditions are such that patents are necessary for the fulfilling of man's capabilities, then patents are necessary; but the time may come when man has so advanced that such protection is unnecessary.

If a discovery be made of such a kind that it is a boon to suffering humanity, that the terrors and pains which have been endured in the past may in the future be assuaged, then the thought is suggested,—is it equitable to allow the discoverer or inventor to give to the profession, and through it to the world, the fruit of his labors. These labors may have been intense and prolonged, and the result obtained only at the expense of health and fortune. Has the profession the right to accept these discoveries as free-offerings? They may be presented to the world as such, but is the generosity of an individual to be greater than the magnanimity of the community? It is not enough to say to dentists, "You belong to an honorable profession, therefore you should not disgrace it by obtaining patents, your aim should be something higher than mere commerce." Of course it could hardly be maintained that a discovery of vital importance to humanity should be patented and so restricted in its use that the poor might not profit by it.

But when we come to discuss secret compounds and secret local anæsthetics, the question becomes altogether different in its bearings. It is nothing short of a criminal act to prescribe for a patient some mixture of which we do not know the ingredients, or if the ingredients are known the proportions of the ingredients are unknown. The dentist who uses these secret preparations must hold in very light esteem the value of a human life. Besides, how undignified is the position of being treated as simpletons by men who presume to think us so weak-minded as to use their drugs on their guarantee. The very fact that such proprietors wish men to act criminally ought to be a sufficient intimation to us to be cautious. Can such proprietors have the welfare of the profession at heart? If so, then it is compatible with the welfare of the profession to induce men to lose their own identity and to become unscrupulous by imperilling the safety of their patients. We owe it to the profession to put a stop to these secret preparations, because the standard of the profession is lowered when it is admitted (by using these

preparations) that the combined intelligence of the profession is insufficient to prescribe for the cases which come under the care of dentists. Too much cannot be said against the use of secret decoctions, and we cannot learn too soon to despise ourselves for employing them.

We will now give our attention to a consideration of our duties to our patients. "The personal relation of the dentist to his patients is usually closer than is agreeable to the sensibilities of cultivated and refined people, and, while tolerated on both sides because of the necessities of the occasion, the approach should be made with a delicate regard to the natural feelings of repugnance to the contact of another person." To render this necessary contact as tolerable as possible to the patient (we are not now discussing the duties of the patient to the dentist) one of the first requisites is a due attention to our personal appearance and personal cleanliness. This is an attention that will be duly appreciated by our patients; and by fulfilling this obligation we, not only as individuals, but as a profession, are held in greater esteem by them. After this our attention is required to the appearance of our office, which of course includes our instruments, some of which are of necessity exhibited to our patients. It is not a matter of surprise that the refined dentist succeeds sooner or later. These duties are so closely connected with our duties to the profession that in performing them we are doing much to raise the standard of the profession. All those who are anxious to have dentistry highly esteemed should give their serious attention to these studies.

The education of the people is a subject of vital importance to the dentist. The education to which reference is made is the imparting of that knowledge which has a direct bearing upon the subject of dentistry as it is related to the patient. We should teach our patients not only *how* to take care of the teeth, but also *why* this care is necessary. This instruction should be given without ostentation, and in season. When the people learn the real object of dentistry, it will not be difficult for a competent man to gain their confidence. It is almost incredible, but unfortunately true, that much teaching is yet necessary before a certain large class of people learn that dentists have aspirations beyond the ability to extract teeth and replace them with artificial ones. Our patients must have confidence in us, and not until such confidence is established can we fulfil our capabilities and give our patients the full benefit of our ability. To make this desired state of knowledge an actuality much effort is required on our part; and the effort required is greater in proportion to the greater number of incompetent and dishonest men in the profession.

Sometimes our duties are not altogether agreeable, and we would

shirk them but for the evil resulting therefrom. We must always have in view the end for which we strive, and that which we think is right we must do. Should we violate our sense of honor in order to hide the defects of a fellow dentist's work? If our services are requested to examine the teeth and we find some work that is so faulty that the teeth are being destroyed, shall we hide this truth from the patient? It certainly requires no argument to show that we should not. Then, how shall we impart the result of our examination? Shall it be in a manner to protect the dentist who did the work at the expense of the reputation of the profession and of the welfare of the patient? Deception is at variance with the ultimate good of humanity, therefore the truth is required. It would be a very simple task to state simply that the teeth require filling. But let us suppose a case where the cavities are at the margins of defective fillings, and the patient requests us to show him where the tooth requires a filling. We do so, and we are told that the fillings were put in but three months ago. The patient is so discouraged that he vows that he will have no more teeth filled. Now the question arises, are we justified in allowing the patient to leave the office with such an erroneous idea of the possibilities of dentistry, and with the determination to sacrifice his teeth? We certainly are not, and our duty is simple—refer the patient to his dentist. By giving this advice we may lose a patient at a time when we are sorely in need of one, but for several reasons this advice will be prudent. This procedure will enable us to retain our dignity before the patient; for what is more humiliating than the debasement which follows a tirade against the members of the profession, and our consequent depreciation in the estimation of worthy people; it will also help us to escape the snares that are set for us by unscrupulous people who carry around false reports of what other dentists have said. In private life we know what evil, malicious tongues work among friends; how hesitatingly then, in our public life, we should give ear to tale-bearers. "A mutual understanding is ever the firmest chain."

Again, by referring the patient to his dentist we afford the latter an opportunity of seeing his shortcomings, and profiting thereby. This course of action is the best for patients, for they should be given to understand that in order that they may reap the benefits which dentistry has to bestow, it is necessary that they should place themselves under the care of a responsible dentist and, when they have need of a dentist, go to him. In the event of a patient refusing to return to his dentist, and of his requesting our services, we are morally bound to give him the advantages of our skill.

SOME INTERESTING CASES.

By GEO. A. WEBSTER, D.D.S., St. Albans, Vermont.

A few weeks since I was called to my office late one evening by a friend, an attorney, who was suffering intensely from apparent alveolar abscess. Found the right superior first molar decayed to gingival margin, with marked pericementitis. Extracted the two buccal roots without difficulty, each having a large-sized abscess attached. Patient soon experienced some relief, and wanted to leave the remaining root till some future time, but finally allowed its attempted extraction. Finding, on attempting its removal, that after it was free from its alveolus there was still an obstruction of some nature, I exerted but little force, and that steadily until I had drawn from the floor of the antrum an abscess nearly an inch in length. Hot water, followed by antiseptic solutions, found ready exit through the nasal opening, and but a few days sufficed for permanent cure.

CASE 2.—Early last February (1895), married lady, about thirty-six years old, presented herself for the extraction of several inferior roots. Noticed second left bicuspid root badly decayed below alveolar margin, and containing small vascular fungoid growth. From examination judged it to be a simple pulp-fungoid tumor, so extracted root, but arranged to see patient again in a few days. Upon returning at the end of about ten days, found marked recurrence of the growth, somewhat more dense than before, and the size of small hazel-nut. Could find no history of cancer vice in the family, but inquiry elicited the fact that this tooth was extracted many years ago, by carelessness of dentist, and replanted. Advised immediate attempt at extirpation. The operation occurred a few days later, February 20th, using the lancet freely in the soft tissues and surgical burrs and hand curettes for the process and bone until convinced I was well beyond the affected zone. Packed with iodoform gauze, and treated for about two weeks with antiseptic solutions, principally phenol sodique. Patient being naturally healthy and of bilio-sanguine temperament, wound healed quickly, and to-day tissues are as hard and healthy appearing as could be desired. Had slide mounted with section of tumor, which revealed cells of encepholoma and was finally confirmed as such by the best of authority. Now eleven months having elapsed, the query seems pertinent: (1) Is it eradicated? (2) Is it possible microscopist erred? (3) If a benign tumor, did replanting have anything to do with it?

CASE 3.—Cases of epilepsy from dental irritation, mentioned by Dr. J. D. Patterson in a paper read before the "Odontographs" of Kansas City, as reported in *Western Dental Journal* for November, 1895, remind me of a similar case two years ago. Patient, female, unmarried, and twenty-eight or thirty years old. Epileptic since a child. Spasms not frequent, but very severe. Had been under care of most eminent specialists. In conversation with patient, who had placed herself in my hands for some prosthetic work, found that following spasms she suffered intense pain extending from the angle of the inferior maxilla to its articulation and upward posteriorly to the ear. Oral cavity well cared for, and few remaining teeth in superior maxilla and most of those in inferior maxilla in good condition. Cavities few, small and apparently well filled. From the nature of the pain my attention was directed to the inferior third molars. The one upon the right side was perfectly sound, while that upon the left had a small, shallow crown cavity. Testing by percussion and examination with reflected light gave negative results, but from the fact that they had no antagonists and were, in this particular case, practically valueless, extraction was advised and accomplished a few days later under ether. Fracture of the teeth disclosed as fine specimens of pulp-stones as I ever saw. Patient experienced relief from the pain before mentioned, and paroxysms were less frequent and less severe for the few weeks during which I had opportunity to know of patient, who is now removed beyond my observation.

CASE 4.—Mr. L., student, about twenty. First came into my hands during summer of 1893. History of case: Alveolar abscess of left superior lateral in 1887. Was lanced by physician and as soon as inflammation subsided under use of antiphlogistics patient discharged as cured, but for the entire six years there had been a continual discharge from sinus opening on labial surface between roots of lateral and cuspid. First treated and sealed canal. Probe in sinus disclosing caries of the process, opened surgically, cutting away carious portion, and smoothing apex of root, which was slightly denuded. Packed with antiseptic gauze and treated daily with H_2O_2 . New tissues formed rapidly and two weeks more would, I am sure, have effected complete cure, when patient was obliged to return to college. Although instructed in further care of the case, his studies here engrossed his attention, resulting in neglect, and the case again coming into my hands last summer presented an extremely bad and somewhat interesting condition. Pus again accumulating, had worked its way posteriorly into the cancellous structure and through palatal plate of superior maxillary bone, loosening the soft tissues therefrom, so that a large sac fell from the roof of the mouth, pressure upon which would evacuate nearly or quite a half-teaspoonful of pus through the labial sinus. It was

with difficulty that opening through the hard palate could be found, but finally by draining the sac and applying considerable force to abscess syringe, introduced at fistulous opening, it was located and a free opening made, disclosing to the probe a very large loss of the cancellous structure between the two plates of bone, so much, indeed, that it seemed almost impossible that other teeth were not involved, but am certain they were vital. Followed usual treatment, and new tissues were forming when, on account of return of patient to his college work, case was resigned to Dr. Andrews, of Cambridge, Mass., under whose treatment it is doing finely. Saw the patient during the holidays. There still existed one small pocket where tissues were not forming, and it is possible a little more diseased bone may need to be taken away, but for the most part it was filling nicely with new tissue, and a favorable outcome is assured.

THE USE AND ABUSE OF THE DENTAL ENGINE.

By MARK G. McELHINNEY, Ottawa, Ont.

Amongst the many appliances necessary to the dentist the engine is one of the most important. It can accomplish easily and in a short time what, by hand, would require considerable force and a much longer time. Having, as it has, so many good qualities, and offering, as it certainly does, so many short cuts on so many operations, it is not surprising that it should have become almost universally abused. Not only is the engine itself wrongly treated, but it is used in operations where, in the common interest of humanity, it has no business. A dental engine is a piece of fine machinery, and must be treated as such. It should not be subjected to strains greater than it is intended to bear. It will carry a certain size of tool in the hand piece, according to the strength and stiffness of the arm, cable or cord attachment, and if a larger tool is used the engine will suffer. It will stand a certain pressure upon the tool, and if the pressure be increased unduly there will be trouble. The chief wrong uses to which the engine is put are grinding up artificial teeth and boring holes in metal. It is false economy to use a fifty dollar engine upon work that can be better done on a ten dollar lathe and a dollar drill-stock.

One of the tests of a good mechanic is delicacy in handling tools. A true mechanic will apply just the required amount of force to accomplish the object, and not a particle more. Moreover, a skilful mechanic always maintains a counteracting force which is used to guard against the slipping or breaking of

the tool. It is this guarding that enables the tool to cut so far and no farther. There is no tool used in dentistry that requires such skilful handling as the dental engine. Mechanical skill is the foundation of dentistry, and no one can hope to excel who is incapable of mechanical training.

I have seen a dental engine used upon artificial teeth with pressure sufficient to grind an axe, the engine sticking, jerking and slipping until I expected to see it fall to pieces, like the parson's one-horse chaise, of old time story. An engine used like this will be a complete wreck in six months, and then the dentist will abuse the makers because it will not do the work of a small machine shop. I have an engine, a Hood & Reynolds', which is just as good—barring reasonable wear—as when it was bought in 1890. A good engine will, with good treatment, last a long time, probably as long as the ordinary dentist lives to use it. A dental engine must be used with continual regard towards its lightness and delicacy of mechanism. It must be cleaned, oiled and adjusted as often as is required to keep it at its best. It requires very little oil, and that must be of good quality. Great care must be exercised in taking it apart. There is nothing so unsightly as battered nut-corners and scratched screw-heads, whether they be on a dental engine, a gun or a bicycle. It must be borne in mind that set screws and nuts are powerful levers, and can exert a force far greater than the material of themselves and surrounding parts can bear. If a dental engine is allowed to get loose and unsteady, it entails much more suffering upon the patients, and, therefore, the condition of a dentist's engine is an index to his consideration for his patients.

The abuse of the engine in operating is a far more serious part of the question. It requires as great or even greater skill to use the engine than it does to work by hand, and yet it has been remarked that the poorer the operator the greater use he makes of the engine. It has also been noticed that in the dental colleges the engines were always in greatest demand by those who were the least fit to use them, and consequently the suffering caused thereby was much greater than necessary. Clinical instructors should pay particular attention to the manner of use of the engine by students, especially as few students have much to do with that instrument before entering the infirmary.

That the engine is abused even by dentists is shown by the fact that patients, as a rule, have a horror of it, and many neglect their teeth on account of their fear of its use. A good general rule may be deduced from experience, and that is, never use the engine on sensitive teeth except where the requirements of the case demand heroic treatment. By sensitive teeth is here meant those having sensitive dentine and those sore from periosteal and kindred

troubles. Many persons have a positive horror of the buzzing sensation of the engine, and it is wilful and unnecessary cruelty to use it where any other means are possible. To accomplish many operations by hand certainly takes more time, and time is money, but reputation is money also, and in the long run the balance will be in favor of the dentist who avoids causing unnecessary pain. In ordinary superficial cavities well shaped and sharp excavators will accomplish the work in very short time, almost painlessly, while a burr used even very carefully is liable to cause some inconvenience. Much of the discomfort attendant upon dental operations is not so much in actual suffering as in the anticipation of it; hence, the dentist should avoid the use of whatever will, by its intricate and formidable appearance, suggest the possibility of pain. The engine is a most formidable looking instrument, and to some patients suggests the horrors of the inquisition, therefore it behoves the dentist to keep the aforesaid formidable instrument as much in the background as possible.

The later models of electro-dental engines, by their compact form and general innocent appearance, are a great improvement in this respect, provided always that the wires are concealed, for few things produce such creepy feelings in the lay mind as the "deadly wire."

In some cases the use of the engine is advisable, and is often in such cases less painful than hand work. For instance, an abscessed tooth containing a filling and extremely sensitive. If the tooth is to be saved it must be opened through the canals, and a hole must be made through the filling to the pulp chamber. To drill by hand would require time and much pressure, while the engine will do the work promptly and with a minimum of pressure. There certainly will be pain more or less intense, but it is the sooner over. In excavating large cavities that are not sensitive, opening pulp-chambers when the nerve is dead, polishing fillings, cleaning teeth and preparing for crown and bridge-work, the engine is in its legitimate sphere, and is of inestimable value to both dentist and patient. It saves time, energy, patience and temper, and renders the dentist's bread and butter a little the less hard earned. To give up the dental engine would be to retrograde a half a century. It is a priceless boon and truly worthy of this age of steam and electricity.

Translations

FROM GERMAN DENTAL JOURNALS.

By. CARL E. KLOTZ, St. Catharines, Ont.

SALOL ROOT-FILLING.—Dry the root canal with warm air. Place a little salol into a test-tube and melt over an alcohol flame. Draw a little of it into a syringe and force it into the canal. Withdraw the syringe point slowly, but keep on forcing more salol into root, filling the space occupied by the syringe point and also preventing the pulling out of that which you have forced in. Allow it to dry; it will harden in a few minutes and be as hard as dentine. If any of it is in the cavity it can be removed with a pellet of cotton dipped into alcohol or ether. Should a little pass through the apex of the root, it will do no harm; it is less irritating than gutta percha. Salol is an antiseptic, it contains 38 per cent. phenol.—*Zahntechnische Reform*.

AN UNCOMMON CASE.—Dr. Daish writes about a case which is very interesting in reference to its successful treatment, and especially its etiology. A girl thirteen years of age presented herself at the office on the 23rd of June with a swelling on her lower jaw, left side. The first molar and first bicuspid were quite healthy, the second premolar also appeared to be sound, but as this was the last of the temporary teeth, it was extracted in the hope of reducing the swelling and giving the second bicuspid an opportunity to erupt. The roots of the temporary tooth were only slightly resorbed. As some pus came out of the alveolus after the extraction, a poultice was prescribed for a few days. The girl did not come back till after several weeks. The poultice had been used, as there was still pus which had a very disagreeable odor. On the 13th of August she was sent to the hospital, and on the following day she was put under the influence of chloroform to find and remove the second bicuspid. The swelling was about the size of a hen's egg, into which an incision was cut from the first molar to the first bicuspid. A large quantity of disagreeable pus flowed from the cut. After much probing the tooth was found, but the position of the roots could not be determined. All attempts to extract it failed. It was determined to pack the incision with iodoform gauze, and wait for a few days. The tampon was renewed every day after the cavity was syringed with boric acid. On the fourth day it was possible to again find the tooth with a probe. It was now close to the first bicuspid, and not far from the opening. Unfortunately in probing it was pushed back to its

original place, from which it could not be removed. On the following day, on removing the tampon, it was again found close to the opening, and, with care, was removed with an elevator. Patient remained in the hospital three weeks, during which time the wound was treated daily with kali permangan, or boric acid and iodoform gauze. From what could be learned from the girl, the malady was caused by a fall down a flight of stairs some four years previous. A few days after this accident the premolar became very sensitive, and mastication was difficult, but she did not complain nor consult a physician until it took this aggravated and painful form, when she consulted Dr. Daish. In examining the extracted bicuspid he came to the conclusion that in falling a blow or pressure was exerted on the developing root which injured the pulp and caused it to die before it was fully developed. —*Monatsschrift für Zahnheilkunde.*

Abstracts.

Edited By G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

ACCIDENTAL spots of blood on the clothing can be promptly removed by the use of pyrozone.—*J. E. Woodward.*

DR. A. W. HARLAN advises painting surface of pulp with collodion after drying, to relieve pain from sudden exposure.

DR. ZOUNGER prophesies that in a few years sulphuric acid will not be used as a solvent of tartar in pyorrhœa. Lactic acid is better from the fact that it does not act on the soft tissues at the same time that the hard tissues are being benefited. Lactic acid has the tendency to stimulate granulations and reunite the gum tissue with the tooth, a thing sulphuric acid cannot do.

DR. G. V. BLACK says that his experiments with the dynamometer go to show that when a tooth has lost its pulp, and begun to show discoloration, the strength of the dentine has been impaired, and there is a peculiar disposition of the enamel to chip off from the dentine not to be found in teeth with living pulps. In a pulpless tooth, if the fluids of the mouth are allowed ingress to the pulp chamber for twenty-four hours, the strength of that tooth is impaired for all time. If the fluids are prevented from entering, and the root is filled carefully, the tooth will retain its color and strength. There is always deterioration in strength to a certain extent where the pulp is destroyed, but this seems to be in direct proportion to the discoloration.—*Cosmos.*

IN making full sets of teeth I nearly always leave off the first bicuspid so as to throw the molars further forward. Better use large jaw teeth and fewer of them. If the first bicuspid is needed to fill the arch put it behind the second molar. Especially in lower sets I want large molars so that in chewing there can be more latitude for grinding instead of mashing of food. And why in the dickens can't our teeth manufacturers be impressed that cuspids should be made more prominent so as to look more natural?—*J. W. Greene.*

ARSENIC.—Dr. Corydon Palmer, of Warren, O., before the American Dental Association, denounced the use of arsenic in teeth. "It is," he said, "pretty bad in bicuspid, worse in the first molar, still worse in the second molar, and positively dangerous in the third molar. It produces irritation all along the side of the neck, often establishing a soreness there lasting for two or three years." After showing a specimen of the injurious effect of arsenic, he urged his hearers to stop the use of the drug. "You cannot," he said, "mix it up in any way in this world but that it is arsenic, and the cloven foot is in it."

BALSAM VARNISH.—Dr. Howard's antiseptic varnish for coating cavities consists of Canada balsam, to which has been added mercuric-chloride and thymol, evaporated over a water-bath from twenty to twenty-eight hours, and finally dissolved in chloroform. The proper consistency can only be determined by experience and careful observation, and it is upon this that its usefulness depends. When improperly prepared it is valueless. It is not, of course, intended to retain fillings, but to aid in their adaptation, and to act as an anti-thermal and protective coating. This formula has been annually given to the classes of Dr. Howard in the University of Buffalo.—*Dental Practitioner and Advertiser.*

DIAGNOSIS OF PYORRHOEA ALVEOLARIS.—Dr. Frank L. Sibley, of Rochester, recognizes two different systemic conditions in pyorrhœa, one of which he terms salivary pyorrhœa and the other lithæmic. Salivary pyorrhœa is due to depositions of salivary calculus on the necks of the teeth. The calculus is alkaline and hence can have no connection with the uric acid diathesis. Lithæmic pyorrhœa is produced by the deposition of serumal calculus on the roots of the teeth below the free margin of the gums. The calculus in this case he believes to be composed principally of uric acid and oxalate of lime. While the term pyorrhœa is applied to both these, the generally accepted constitutional treatment applies only to the lithæmic condition, and if applied to the salivary pyorrhœa will only aggravate the condition.—*Dental Practitioner.*

TO CLEANSE AMALGAM.—Dr. Benjamin Lord uses a teaspoonful of hydrochloric acid to a pint of water. A little is poured into a wedgewood mortar and alloy added; after stirring this the mercury is added and the amalgam is made, and washed in clear water. This will give an amalgam clear of the black oxide, and which will set more quickly, become stronger and discolor less.

WAR TALK.—“Z-z-z-z-z.—There is blood on the face of the moon. Things wear a ruddy aspect. Wild, wandering Wills-o'-the-Wisp, and mad, malevolent meteors flash athwart our heaving heaven. Minatory monsters menace, and chaos yawns wide its gaping mouth. With the valiant Pistol we rise and swear “All Hell shall stir for this.” Only in blood, or at the least, wine of deepest ensanguined hue, can this deep, dark, doleful debt be washed away. Listen, oh Earth, and give ear oh ye morning stars! The editor of THE DOMINION DENTAL JOURNAL scandalously suggests, yea, artfully alleges, that the editor of this journal is *fat*. Oh ye Gods on high Olympus perched! Fat! Fat!! Loaded down with gross material Fat! H-a-h! If this be not promptly resented, soon will he indulge his sardonic impulses in hinting that, like the good Falstaff, we grow *old* and fat. Fat! We resent the imputation. We are but stoutly stalwart, and if that pampered presumptuous pet of Parnassian Polymnia does not modify his base charge, we may give him convincing proof of the character of our rotundity. Fat! A-r-r-r-r.”—*Dr. W. C. Barrett, in Dental Practitioner and Advertiser.*

SOLDER FOR ALUMINUM.—The problem of a suitable solder for aluminum was ably dealt with by Mr. Joseph Richards before the Franklin Institute. After reviewing the attempts made and the failures met with, he gives his own experience in the search for the ideal solder. He wished to obtain a solder with the following qualities: (1) It must wet the aluminum and adhere firmly. (2) It must not disintegrate after exposure to the air. (3) It must be as malleable and strong as aluminum. (4) It must have a low melting point so as to be easily worked with a soldering iron. (5) It must have the same color as aluminum and not change color. (6) It must be cheap enough for general use. After two years' experimenting the essayist found that an alloy of zinc and tin in certain proportions with a little aluminum and phosphorus produced almost the desired result. After a little further trial the proportions in the alloy were placed as follows: Aluminum, 1 part; 10 per cent. phosphor-tin, 1 part; zinc, 11 parts; tin, 29 parts. On remelting this solder a more fusible alloy liquates from it, corresponding as nearly as possible to the formula Sn_3Zn_4 , which, in the essayist's opinion, makes the best solder available for aluminum work.

Proceedings of Dental Societies.

OTTAWA DENTAL ASSOCIATION.

At a meeting of the dentists of Ottawa, held at the Russell House on Friday, November 22nd, it was decided to form a local society. The organization was called the Ottawa Dental Association. The following officers were elected: Hon. President, Dr. Oliver Martin, sr.; President, Dr. C. A. Martin; 1st Vice-President, Dr. W. A. Leggo; 2nd Vice-President, Dr. J. H. Parnell; Secretary, Dr. Ira Power; Treasurer, Dr. V. H. Lyon; Executive Committee, Drs. Leggo, Lyon and McElhinney; Committee on Ethics, Drs. Green, Pearson and Davidson.

Dr. McElhinney was elected correspondent to the dental journals. It was decided to hold monthly meetings during the winter.

The first regular monthly meeting was held on Monday evening, December 2nd. After the reading of the minutes some time was spent in discussing the scope and objects of the association.

Dr. McElhinney then read a paper on "The Use and Abuse of the Dental Engine," and a short discussion took place. Under the order of business known as Question Box, Dr. Armstrong introduced the all-important subject of canal-filling. Almost every member had something to say on this subject, and the discussion was interesting and valuable.

Dr. J. E. Hanna said that the material used was of less importance than the thorough cleansing of the canals, the material of course always being chosen with due regard toward its adaptability. The members present agreed with Dr. Hanna that aseptic treatment was of the first importance. Dr. Ira Power described a case requiring excision of a part of the lower jaw. Dr. W. A. Leggo, a case of threatened lock-jaw from an abscessed tooth, and Dr. Davidson a case of abscess with complications that indicated perforation of the root between the apex and the pulp chamber.

The meeting was throughout interesting and instructive, and if each one there picked up as many useful hints as did your correspondent, membership in the association is an investment that pays large dividends. The multiplication of associations of this kind throughout the Dominion and the continual mutual exchange of ideas and experiences cannot fail to greatly benefit both the dentists and their patients.

VERMONT STATE DENTAL SOCIETY.

The next annual meeting of the State of Vermont Society will be held on the 19th and 20th of next month in the Queen's Hotel, Montreal. The Province of Quebec members of the Canadian

profession have so often been the guests of their neighbours, that they were glad of the opportunity of reciprocating a share of the hospitality, and it was with much pleasure that they learned, that the Vermonters, as well as some of the old friends from New Hampshire and New York, would be present in Montreal. The guests will arrive at 8 p.m. Wednesday, 18th March, will be driven in sleighs to the Athletic Club House, where an informal supper will be given, and a couple of hours' entertainment by the Montreal Snow-Shoe Club, after which they will return to the Queen's. The regular proceedings will begin at 9.30 a.m. Thursday. On Thursday evening a banquet will be extended the guests; tickets for those who are not guests, \$1.50. A very pleasant evening will be spent. We hope to have a large representation of our provincial dentists. The affiliation with Bishop's University will help to render the occasion an auspicious one. Names, with subscriptions, should be sent at once to Dr. G. W. Lovejoy, treasurer, 2428 St. Catherine Street, Montreal.

DENTAL COLLEGE OF THE PROVINCE OF QUEBEC.

At a meeting of the corporation of the University of Bishop's College, Lennoxville, Que., the following were present: R. W. Heneker, D.C.L. (Chairman), Rev. Professor Allnatt, D.D., Rev. Professor Scarth, M.A., Rev. Canon Thornloe, M.A., D.C.L., Rev. Thomas Adams, M.A., D.C.L., Rev. B. G. Wilkinson, M.A., A. Le Roy, M.A.; Hon. Judge W. White, A. D. Nicolls, M.A. Dr. F. W. Campbell, Dean, and Dr. McConnell, Vice-Dean, were present representing the medical faculty, and Dr. Beers, Dean of the Dental College of the Province of Quebec.

After a few very pleasant remarks from the Chairman, the amended Dental Act and the terms of affiliation were read by Dr. F. W. Campbell. Considerable discussion followed as to several details. It was arranged that students intending to go forward for the degree of D.D.S., which the University of Bishop's will confer, must attend the required medical courses in the medical faculty of Bishop's in Montreal, and be examined by the professors of the required branches; that the dental instruction shall be confined to the "Dental College of the Province of Quebec"; that the rules and regulations of the Board of Examiners of the Dental Association of the Province of Quebec and the Dental College shall be amended to harmonize with the terms of affiliation, and that arrangements will be made to give the French-speaking students the required lectures in their own language. In addition to the seven members of the Board of Examiners elected by the licentiates, the University of Bishop's and the Dental College have each power to appoint a member, increasing the number to nine. The

Board of Examiners has power to appoint two or more assessors, either outside its own body or from amongst the members of the D.A.P.Q., to attend the dental examinations of the University, and to report to the Board upon the character of such examinations. The qualifications for the degree of D.D.S. will be made in strict accordance with the requirements of the National Association of Dental Faculties, and as soon as possible a calendar, giving full information, will be issued, and may be obtained from Dr. F. A. Stevenson, Secretary of the Dental College of the Province of Quebec, Peel Street, Montreal.

The following is at present the staff of the college :

Hon. Professors—Drs. Chas. Brewster, C. F. F. Trestler, J. A. Bazin, S. J. Andres.

Anatomy (Bishop's)—Prof. Hackett.

Practical Anatomy (Bishop's)—Prof. Rollo Campbell.

Physiology (Bishop's)—Prof. A. Bruere.

Chemistry (Bishop's)—Prof. J. T. Donald.

General Pathology (Bishop's), Histology and Bacteriology—Prof. MacPhail.

Dental Physiology, Pathology and Therapeutics—Profs. W. G. Beers and L. J. B. Leblanc.

Dental Surgery and Anæsthetics—Profs. F. A. Stevenson and E. Dubeau.

Prosthetic Dentistry and Metallurgy—Profs. J. Gardner and S. Globensky.

Operative Dentistry and Orthodontia—Profs. G. W. Lovejoy and J. H. Bourdon.

Dental Materia Medica—Profs. W. J. Giles and L. Franchere.

Crown and Bridge Work—Profs. T. Coleman, J. Globensky.

Dental Technique—Prof. J. H. Springle, for both English and French students.

Dental Jurisprudence—A. Globensky, Attorney of the Board of Examiners.

Resident Clinical Instructor—Prof. S. J. Andres.

The list of Clinical Instructors is under revision, as it is determined to make the important position one of real utility, not merely of ornament.

BOARD OF EXAMINERS DENTAL COLLEGE PROVINCE OF QUEBEC.

In accordance with the amended Act of Incorporation, the University of Bishop's College and the Dental College of the Province of Quebec have each the right to appoint a member of the Board of Examiners. The University appointed A. H. Beers, Cookshire, and the Dental College appointed W. G. Beers. The

following were appointed Assessors: A. H. Beers, E. B. Ibbotson and J. Nolin.

Examiners have divided the subjects for the License as follows:

Prosthetic Dentistry and Metallurgy, Practical, S. Globensky.

Prosthetic Dentistry and Metallurgy, Theoretical, A. W. Hyndman.

Anatomy and Hygiene, E. Casgrain.

Chemistry and Orthodontia, J. Nolin.

Materia Medica and Therapeutics, L. J. B. Leblanc.

Operative Dentistry, Crown and Bridge Work, Practical, G. W. Lovejoy.

Operative Dentistry, Crown and Bridge Work, Theoretical, E. B. Ibbotson.

Dental Surgery and Anæsthetics, A. H. Beers.

Dental Physiology and Pathology, W. G. Beers.

In future, students will not be allowed to sign their name to their papers, but must use a *nom de plume*, as usual in law and medical examinations.

The next examination will be held on the 1st Wednesday of April.

Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

THE QUESTION DRAWER.

22. *Q.*—We are warned against conveying septic matter from one patient to another by use of unsterilized instruments. Is there not the same danger of transmitting from a diseased to a healthy part of the same mouth? How can it be best avoided? and how best treated, if the accident occur?

(a) Practically, I think there is no danger of transmitting septic matter from one part to another of the same mouth. Who would think of sterilizing his instruments between the operation of filling a tooth on one side of the mouth and that of one on the other side? If any such claim might be made it would be in the case of Rigg's disease; and yet we see teeth affected immediately beside healthy ones, while food, saliva, etc., are constantly passing from one to the other. It may be possible to affect a healthy gum margin by wounding it with an instrument used in scaling a tooth affected with the disease under consideration. In such case the treatment would be that indicated in any other case of the same disease.

L. CLEMENTS, Kingston.

QUESTIONS.

24. *Q.*—What are *Leptothrix buccalis*?

25. *Q.*—An aluminum crown being fitted to a root, was noticed to have a white, fluffy deposit upon it when removed from the mouth. The cusps were loaded with ordinary amalgam and the crown immediately cemented on with oxy-phosphate of zinc. This was about — m. Patient complained of a sour, metallic taste. At — p.m. same day he returned; the crown feeling and tasting very unpleasant. Upon entering the office he pressed the crown with his tongue, when it came off. He lifted it from his mouth, when it immediately became so hot that he could only hold it by letting it drop from one hand to the other rapidly. After a short time the heat subsided, when the crown was found to be riddled with holes. What was the chemical action? What caused it?

Correspondence

DENTAL QUACKERY IN THE COUNTRY DISTRICTS.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—My practice is in a small village. I am dependant to a great extent upon the farmers and the residents of other neighboring villages. I was discouraged when I first settled here, that although I had become a permanent resident, many of the residents went away many miles when they wanted dental services. I learned that their distrust of dentistry was due to the fact, that they had learned this by suffering and failure, caused by incompetent practitioners, inferior materials, inferior operative and mechanical service, ignorance of the true science and art of the profession, dangerous meddling with drugs and poisons, and unskilful extraction—this was what the people had been getting from their local dentist. I do not flatter myself that I am an Atkinson or a Tomes, but my training and education fitted me to give just as good service in this village as could be had elsewhere. It took me many years to educate the farmers and others as to the importance to their general health of preserving or replacing the natural teeth. I succeeded in making them understand that Nature did not give the teeth, any more than the eyes to be extracted, that frequent examinations and early attention was money in their

pockets, and their teeth in their sockets. Now, during the last few years a few regular licentiates have started out on a hunting expedition after the natural teeth, as if they had some spite, as well as some sport, and have been squirting into the gums several dangerous local anæsthetics, with dirty syringes that are never sterilized, with dirty fingers that are never washed, and conveying, no doubt, diseases from one mouth to another. Of course these perambulating rascals take the people "on the jump;" they profess to perform miracles, and like all modern miracle performers, they not only deceive themselves and their victims, but they lie, and the more they lie the more many of the farmers seem to believe them. Now just contrast the faith our people put in these dental liars, with their want of it in their own regular practitioners, and is it any surprise that some of the best dentists feel like leaving the farmers and their families to the care of these impostors exclusively? When, by reason of preference, well-educated dentists or physicians settle in the county districts, they should have all the patronage, as well as the confidence of the community. If this is justifiable in the case of the local press, in the printing and advertising residents may require; if it is proper in relation to the local merchants, the local schools and churches, it is as much so in relation to the local professional men. It is one of the ways to strengthen these rural centres of society. Country people have always been the easiest victims of the traveling medical and dental quacks, who have no one settled centre of practice, but who are unprincipled *tramps*, robbing the public just as surely as if they went into a farmer's stable, and gave him a pair of blind horses for a healthy colt. The farmer might believe he had the best of the bargain, but after a while he would get his own eyes open, long before those of his "bargain." I would plead with the local country press of Ontario to expose these local anæsthetic humbugs, who prey upon the credulity of the public; and I would further plead with every dentist who wants to do what is right and ethical, and not to be tempted to imitate these tramps, either by their methods of advertising or their modes of practice. The local press should several times a year afford room for educational literature in dentistry, which would, in plain language, convey to the farmers especially, information as to the uses and value of the teeth, and the various direct and indirect disorders which may result from their disease, or even their absence. If this was done impersonally, and not utilized as a means of personal advertisement; if it were done coincidentally all through the local press by the local dentists in harmony, it would put a nail in the coffin of the quack.

Yours,

L. D. S.

KIND WORDS.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—We have come to the end of another year. The JOURNAL has made its regular and welcome visits. As a subscriber, I have watched its steady and rapid progress from a quarterly to a monthly publication. The past year, I think, has been the best in its history, and compares favorably, taking subscription price into consideration, with many other journals of much greater pretensions.

With congratulations for the past and well wishes for the future,
I am, etc.,

CONSTANT READER.

December 20th, 1895.

"THE REASON WHY."

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—Your invitation for brief letters from your readers on subjects outside the purely scientific, prompts me to place a fact or two before the profession, and to ask my colleagues to send you on post-cards their explanation of "The Reason Why."

Why is it, that when the cost of becoming a dentist in Canada ; the cost of outfit, furnishing, keeping stock in repair, and the cost of living, has doubled within the last twenty years, the fees have depreciated one-half, and in many cases two-thirds? Why is it, that while the country at large is richer, and we see all around us the evidences of success in every other sphere of life, all things being equal, that the dentists are not, as a rule, as prosperous as they were twenty years ago, unless they have married their money, inherited it, or made it in fortunate speculation? Why is it, that in spite of our Acts of incorporation, our Boards of Examiners, our colleges, our voluntary societies, and our JOURNAL, the public of Canada, almost everywhere, seem to be fifty years behind the times in their appreciation of the preservation of the natural teeth, their ability to distinguish between honesty and quackery, education and assumption? Why is it, that all the scientific, instrumental, and educational advancement of the profession should be more to the profit of the public than the profession : that while we are able to-day to give better and broader service to the public, dental practice in many of its phases is fast becoming a sort of charitable institution?

A. B.

[To start the ball rolling in reply, we believe that the public cannot be educated by quack advertisements, yet that is about all the "education" the public gets ; that impersonal information about the teeth, given to the public through the press, and specially through the official influence of the press, is needed ; that for lack of this most of the grievances arise to which our correspondent

refers. The public know a good boot from a bad one much better than they know a good filling from a bad one. Many of them are better judges of the teeth of a horse than of their own. The work being done by Boards of Examiners, colleges, societies, and the JOURNAL is being done for the profession. Perhaps our correspondent may show us that there is scope for the public work his remarks suggest. Of all causes of the public ignorance and depreciation of the value of the teeth, there seems to us none more glaring than the very same mental and professional condition among medical men. The physician has opportunities from the very first moment of existence to advise parents and children of the importance of early attention to the teeth. A personal experience of over twenty-five years justifies the statement that we can count upon the fingers of one hand the names of physicians who have shown that they know as much about the teeth and their diseases as a first year dental student. We have only met two who knew enough not to meddle in diseases which only a practical dentist can treat. We have yet to meet the first one who feels it his duty, at any time, carefully to examine the condition of the teeth and gums, and advise attention by the dentist.—ED. D. D. J.]

Obituary.

CHARLES JAMES FOX.

One of the once best known leaders of dentistry in England died on the 4th of last month from an overdose of chloroform, in Gravenhurst, Ont., in his 66th year. Owing to some trouble in England he gave up a lucrative practice in the West End of London and came to Canada with his son and a female assistant, and took up a free grant of land in the township of Wood, trying his hand at farming, but his skill as a dentist becoming known, his services were sought after by a large number of people in the town, which ultimately necessitated his removal to Gravenhurst. Only a short time ago he bought a property which he named after the old family residence in London, "Holland House." It was largely by his efforts that the profession became a corporate body in England. He received a testimonial signed by all the leading dentists in Great Britain, accompanied with a purse of one hundred guineas. As editor of the *British Journal of Dental Science*, his name was associated with the contests against quack advertising, as well as many various reforms. Last winter his wife died from an overdose of chloroform which she took to relieve severe neuralgic pain.

Dominion Dental Journal

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All Communications relating to the Business Department of the Journal must be addressed to DOMINION DENTAL JOURNAL, Room 97, Confederation Life Building, Toronto, Canada.

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[No. 2

L.D.S. AND D.D.S.

It should not be forgotten, that the L.D.S. in Canada was never at any time dragged through the mud, as was the D.D.S. in the United States. When there was no matriculation in the American colleges; when the degree of D.D.S., to use the words of the editor of the *Dental Practitioner and Advertiser*, written advisedly, "was obtained at the end of a few months' study;" when "almost any one could obtain entrance into a dental college," the requirements for the L.D.S. comprised a classical and mathematical preliminary, and three or four years' study and practice; attendance upon theoretical and practical anatomy, physiology and chemistry, and the careful training which students received under the indentureship system. Of course, it frequently occurred, that a student articulated to an incompetent or neglectful dentist, found himself deprived of the clinical instruction in operative dentistry and the advantages of the systematic didactic work of a college. But it quite as frequently happened that the student entered an inferior college, that the education received was a delusion and a snare, and that "the few months' study" was, in fact, much inferior to what he could have obtained had he remained at home. This aspect of the question was well threshed in Vol. VI. of this journal, and it is satisfactory to find that our friend the editor of the *Dental Practitioner and Advertiser* has at last admitted our contention, that the possession of the degree of D.D.S., in the early days,

"represented but a comparatively low degree of erudition and a small amount of professional training, and it was valued accordingly." But it must be remembered that when this was the curriculum of the dental colleges, that required for the L.D.S. was three to four full years of steady study and work, and that if the Canadian requirements had their defects—as they certainly had—they were far from as glaring as those publicly presented in the calendars of the time, to tempt the student to the American schools.

We all know and appreciate the work done by the National Association of Dental Faculties to raise the standard of the college curriculum. But we do not think the executive give sufficient credit to the work done by Canadian students who obtained the L.D.S. Of course it does not come within the province of the Association to discuss the subject ; but it may some day, and it is only just to remember, that at the time when the D.D.S. was being given indiscriminately "at the end of a few months' study" to Tom, Dick and Harry, to candidates ignorant of "the commonest rudiments of an English education," not to speak of any higher education ; to foreign candidates who did not understand one word of the lectures, the preliminary requirements for the L.D.S. were as high in Canada as they are to-day, as high as any required in the world, and 75 per cent. beyond that demanded in the United States ; and that when Doctors of Dental Surgery were being made in "a few months," the students had to devote from thirty-six to forty-eight months to get the L.D.S. We contend that the L.D.S. was thus a much superior degree. The National Association knocked the bottom out of the D.D.S. degradation, and deserve the gratitude of the profession.

THE GENUS "HOG."

We have the *genus* Hog in the professions as well as in the trades and manufacturing. It ought to be easy to trace the origin of this modified descendant of some pre-existing *sus scrofa* evolved into human form, having had transmitted the same want of moral sense and the same voracity as his omnivorous predecessor. Fortunately for us in Canada, the *genus* could never get acclimatized. We have our own share of the charlatan and impostor, but the Dominion is too big to breed the genuine human hog, and so when a few are discovered they excite curiosity as well as contempt.

The dental hog may not want the earth, but he wants all the business in his town. He never misses the chance, by fair means or foul, generally the latter, to monopolize every advantage which can in any way serve his swinish instincts. He plans the circum-

vention of his confreres in every social, business and professional relation ; playing the parasite where he fears, and the arrogant where he dares ; fawning upon those who have patronage to bestow, and riding roughshod over those who have an equal right to share it.

"We cannot make a silk purse out of a sow's ear," and we cannot make a gentleman with a piece of parchment. A degree or a license to practice dentistry or medicine should have some refining influence upon its possessor. As a rule it has. But the hog is always a hog, whether his trough be a silver dish or a dirty ditch. His greed is not lessened by satiety. When he can grab no more for very fulness, he grieves because he is gorged. It would be a blessing to us if the dental laws could dispose in some way of the biped hog, as the law of Mohammed disposed of his quadrupedal progenitor.

Among the latest contribution to the degradation of dental advertising, we have recently seen a new commercial trap for drawing business, and which, while it may be legitimate for butchers, barbers, and saloon-keepers, is simply disgraceful for professional men. It is in the form of a book of advertisements, bearing a large number of coupons, with the list of members' names on the back of the cover. It is stated that the advertising company, not the member, gives certain prizes for every dollar's worth of sausages you buy from the butcher, every dollar you spend in getting your hair cut, and every dollar you invest with the dentist ! But it does not state that the member has to pay a certain percentage of all coupons he hands over to the agent. There is no difference as to whether the agent or the member gives the customer the prize, as a premium, in consideration of a certain purchase. A dentist or a physician who deals in such contemptible methods of drawing business ought to keep a stock of sausages, etc., on hand, and supply the patients with boots and shoes, turnips and potatoes. We should then have some interesting additions to the curiosities of dental advertising. For instance, how would it look :

"J. J. Hog, L.D.S. Premiums given with all 'work' ! Get your teeth out and in at my *abattoir* only, and get a prize package with every tooth pulled ! One year's subscription to the local paper with every set of teeth ! Contracts made by the year, or in perpetuity ! Farm produce, and old teeth bought, sold, and exchanged ! No need to go elsewhere !"

TO SECRETARIES.

Please do not fail to send us at once dates and places of next provincial meeting ; notices of elections, etc.

THE COMMERCIAL INSTINCT.

The tendency to adopt trade methods in professional practice will not likely cease. The temptations which these ways and means of making an extra dollar offer to young men, are naturally hard to resist; especially where we have a small class of "gutter dentists" who in spite of the encouragement generously given them, and the opportunities to rise in the social and professional scale, always carry about them the odor of unsanctity and the instincts of the slums. It is an admirable trait of character, when a young man rises above any invidiousness of early association, and aspires at least to be a gentleman, in the true sense of the word. But it is a vulgar boast with some of the *canaille* of the profession that they would drag dentistry down to the level of the meanest trade, if they could make that extra dollar by the degradation. There are people who are only law-abiding because of their dread of punishment, and it is only the restraint of the laws on dentistry and the by-laws of the Boards, which deters the gutter dentist from turning his office into an imitation of a barber-shop, with half a dozen unlicensed employees operating at as many chairs. This ignoble and selfish feature is as natural to the *genus* Hog as it is for a dog to bark. If a dentist has determined to make everything yield to the purely commercial, so that ethics and unselfishness form no part of his rule of conduct, he can no longer be regarded as a respectable member of the profession. If a professional man resorts to the methods which degrade the meanest trade; if in private or public he depreciates the knowledge or skill of worthy confreres, he must not expect to take rank in professional circles beyond that of the actual outlaw. If he feels under no obligations to conform to the ethics of his profession he has no right to complain if his colleagues display towards him their contempt. We have an example as to how men are regarded who despise the ethics in the practice of law and medicine. The specialty of the dentist is as much entitled to respect as that of the oculist; but the oculist who makes a mere trade of his practice may be a decent mechanic, who can have no claim, however, to professional esteem. The purely commercial instinct in a profession is positively immoral. For such men a bar-room license would be more suitable than a dental license. There is no reason why careful financial management and a determination to secure good fees should not govern those who are the most ethical. That would not satisfy the selfish churl. He cannot be happy unless his hand is against his confreres. Like the cockney who boasted that he had been kicked by a Duke of York, the churl seems to enjoy the dislike of his confreres. We do not imagine that their

contempt costs him a moment's worry. No one supposes that the ordinary rooster is at all jealous of the peacock. Quite likely it gets so much fun out of the peacock's voice that it never once thinks of the peacock's plumage.

THE UNIVERSITY OF BISHOP'S COLLEGE AND AFFILIATION.

"The Dental College of the Province of Quebec," after the usual vicissitudes of new organizations, has been affiliated to the University of Bishop's College, for the purpose of obtaining the degree of Doctor of Dental Surgery. The Province of Quebec, in many ways, affords opportunity to puzzle and perplex onlookers. The two legal languages naturally demand that in all matters pertaining to education the established rights of the minority, as well as the majority, will be carefully considered, and the dentists have had to congratulate themselves upon an unbroken alliance of goodwill, which has never had intruded upon it any vexatious question of nationality. In considering the organization of a college, two faculties, teaching respectively French and English, were established, and with a view to perfect equality, the promoters placed in the amended Act of 1892 a clause providing that the school might be affiliated to the French and English universities. For some reason not very clear, the University of Laval, the only French one in the province having a medical faculty, could not accept the overtures for affiliation, and the French dentists in that respect were left out in the cold. McGill University was willing to accept the proposal conditionally that the Dental College would take a meaningless degree, G.D.S.—Graduate of Dental Surgery—and occupy a position inferior in many respects to the Veterinary College, which enjoys the distinction of a faculty, receiving the degree from McGill of D.V.S.—Doctor of Veterinary Surgery. It seems that such doctorate degrees cannot be given under our constitution excepting through a University, and as we have not the facilities for manufacturing colleges and universities to order which exist over the border, the dentists of Quebec had either to be entirely dependent upon foreign schools for an education, for without the opportunity of obtaining a degree worthy of the name, no dental school can exist in the province, or get what they need from a university in the province. The University of Bishop's College has settled the difficulty, and no doubt it will prove of great benefit to all parties concerned.

Dentistry has earned its claim to social and professional equality with medicine and surgery. No less than twenty-nine universities

in the United States grant the degree of D.D.S. or D.M.D.—the latter, Doctor of Dental Medicine, by Harvard and Michigan. The University of Toronto has granted the degree of D.D.S. for several years; and ever since the first movement towards incorporation in 1868, the medical profession of Ontario has held out a sympathetic hand to the dentists. In England dentistry is affiliated to the Royal College of Dental Surgeons, in spite of one or two antiquated cranks, who held the opinion that the profession should be classed with the trades, and who were rather taken aback when Her Majesty the Queen placed dentistry on the same social level as medicine and surgery, by knighting two of its distinguished practitioners. All the leading medical journals in Europe have recognized the great progress made in dentistry, and from the first step, the *London Lancet* and the *British Medical Journal* have upheld it with a respectful sympathy, which lesser lights might as well follow now as later. Forty-six states of the American Union officially recognize the doctorate in dentistry as fully equivalent to the doctorate in medicine. Even in Mexico it is made compulsory for practice. Six of the seven provinces in Canada have by Act of Parliament recognized it, and in several it is made obligatory. But it takes a long time to remove unreasonable prejudices in old Quebec. It has taken twenty-seven years of hard work on the part of the dentists of Quebec, of unselfish labor, without a dollar of endowment or financial aid, directly or indirectly, from the public or the Government; with a staff of teachers who for several years have done their duty without salary, and who, moreover, are individually heavily out of pocket—it has taken this and more before the profession could secure satisfactory arrangements to give students a thorough education in their own province. The affiliation with Bishop's University will be made a success.

FOUR HUNDRED (\$400.00) DOLLARS IN PRIZES.

The special attention of our readers is called to the advertisement in this issue of the Palisade Manufacturing Company (with above title) on page facing "Original Communications." The prize contest which this well-known firm announces will no doubt attract a great deal of attention, and result in the submission of many articles of merit on the "Germicides and Antiseptics in Dentistry." The prizes are extremely liberal, and the well-known professional and literary eminence of Dr. George S. Allan, of New York, who has kindly consented to act as judge, is a sufficient guarantee of the impartiality to be observed in the awarding of prizes. We are assured that there is absolutely "no string" attached to the provisions of this contest, and any dentist in good standing in the

community is invited to compete on equal terms with every other competitor. Further particulars as to conditions, etc., can be obtained on application to the Palisade Manufacturing Company, Yonkers, N.Y., or to their agent in Canada, Mr. R. L. Gibson, 30 Wellington Street East, Toronto, Ont.

EVERYBODY TALKING ABOUT IT.

People everywhere are standing aghast at the wondrous strides of the *Family Herald and Weekly Star*, Montreal. Certainly few Canadians were prepared to see a Canadian paper take the head of the procession and to become such a conspicuous all-round favorite so soon. The *Family Herald and Weekly Star*, Montreal, is simply a marvelous production, and to think that is only a dollar a year adds to everybody's genuine amazement. It is well worth while sending to the publishers, Montreal, for a sample copy, which we are told will be sent free just to enable the people to see what can be produced in the newspaper line for a dollar a year. Few people will credit their own senses when they see it. Artists who have seen the premium picture to be given with the *Family Herald* this year ("Little Queenie," we think, is the name of it) say that the premium is quite as wonderful as the paper itself. Every one must admit that the *Family Herald* has carved out a great place for itself not only on this continent, but throughout the world.

DR. W. E. BEACHLEY, Hagerstown, Md., says: "I have had such good results with Borine that I can say I am more than pleased with it. In a case of Alveolar Abscess which for a long time had resisted treatment I completely cured it after using Borine, no other remedy had given me such quick results and I heartily recommend it. I have discarded other antiseptics and intend to use it alone." All dentists find in Borine prophylactic and hygienic properties that make it invaluable as a mouth and tooth wash. In fact it might be termed the *Ideal Dental Antiseptic*. It will devitalize the mouth without harming the most delicate epithelium or injuring the dentine in the short space of a quarter of a minute. Borine removes acrid accumulations, tartar or tobacco stains by dissolving the deposits, not by bleaching. It is an absolute necessity for those wearing artificial dentures. In Pyorrhœa Alveolaris, by using Borine and a tooth-brush at least three times a day, the accumulation of food and micro-organisms is prevented and thus the aggravation of the disease.

Reviews

Canada, and Her Relations to the Empire. By LIEUT.-COL. G. T. DENISON. Reprinted from the *Westminster Review*. Toronto: *The Week* Publishing Company.

It is much more a shame for a man to be ignorant of the history of his own country, than of that of his own profession. It concerns us very little, in a practical sense, as to what the ancient Egyptians knew of the dental art; but to every man who loves his land, it concerns us a great deal, as to how the present constitution under which we enjoy freedom and prosperity, and our relations to our great Empire, were brought about. *The Week* is a powerful moulder of opinion in Canada, especially since it has been relieved of the immediate ægis of one who is not in touch with our aspirations. It should be on the table of every dentist. We hope that Colonel Denison will enlarge the subject to book form.

The Medical Digest, 1840-90. 794 pp., 132 pp. index. *Appendix to Digest, 1891-95.* 206 pp., 21 pp. index. By RICH. NEALE, M.D., London, Member of the Dental Medical Society of Batavia, Java. Third edition. London, Eng.: Ledger, Smith & Co., publishers.

These are two works of great value to the busy practitioner, independent of the many works or value to which it refers. Dr. Neale issued his first edition in 1877, and scores of writers have been saved days and weeks of research and study, and have illuminated their writings by the facilities which this unique work affords. The encomiums bestowed upon it by the *British Medical Journal*, the *Lancet*, the *Practitioner* and other journals of high repute, should be quite enough to satisfy sceptics as to its value. It serves to show the importance of preserving the monthly journals for reference; it is a check upon any attempt at the imposture which delights in proclaiming "new discoveries" which are only the reproduction of old ones; it is a guide to the philology of the medical profession; it is a mine of many precious hidden treasures in medical and dental literature; it is a key by which the busy practitioner can unlock many concealed suggestions. It is a *multum in parvo*; an immense library in two volumes; saves time, temper, and labor. Under the head of each disease there is a full list of the remedies used, and under each remedy a similar list of its therapeutical applications. Life is too short to plod through a hundredth part of the information which this work has made easy.

Dominion Dental Journal

VOL. VIII.

TORONTO, MARCH, 1896.

No. 3.

Original Communications

COMMON - SENSE.

By G. V. N. RELYEA, L.D.S., Oswego, N. Y.

Common-sense—that scarce kind of commodity, which is often sadly, if not lamentably lacking, in the best of men. Solomon, that great seer, was wanting in this essential element, the lack of which, combined with worldly surroundings and giving rein to his lower proclivities, led him to forget his God; hence he left a record stained, which has become a by-word for the impure, and his influence, owing to his exalted position, will be a blot upon his escutcheon for all time.

What led me to this preamble was the question asked in your journal, viz., “What do you think of the relative value of the six-year molars?” I extract quite a number of these valuable teeth, but only under the force of circumstances. Why and when are we justified in doing so? Let us suppose a case, the type of which will meet the experience of almost any dentist in active practice.

A mother comes in with her son in the morning, with despair written upon the features of both mother and child, while the following colloquy ensues: “I have been up with this boy all night; I want to see what you can do for his tooth.” “How old is he?” “Nine years.” The patient is placed in the operating-chair. On examination I find a six-year molar badly decayed, the entire crown involved, combined with chronic periostitis; it has passed dead line. I tell the mother it is too far gone to be saved; extracting is the only remedy. Whereupon the boy protests, does not want it out; and the mother comes to his relief and says it is only a temporary tooth and will not be bad; but

the patient knows better, and attempts to leave the chair. I send the mother away, and then bring to my assistance my powers of hypnotism. I begin to soothe the boy, pat him on the head and cheek, look him in the eyes, and say, "We will soon stop that tooth from aching," etc. I am gaining his confidence, and say, "We have different ways of treating these troublesome teeth," and then take out my handkerchief, on which I pour some chloroform, smell of it (all the while talking), and then give him two inhalations; then smell it again myself, and say, "I like to smell this," and give him another dose; keep talking, so as to get his mind under control. Soon he begins to lose consciousness, and I have him in my power. His tooth is extracted; the mother and son are sent home happy.

I have administered chloroform to children under twelve years of age for upwards of thirty years, and with no evil results. The question about six-year molars was undoubtedly asked owing to the early decay of these teeth. It more frequently happens than otherwise that before the twelve-year molars are erupted the six-year teeth show signs of decay owing to the bad condition of the fluids of the mouth, caused by the decay of the temporary teeth, no attention having been given to them. If the six-year molars escape the ravages of decay up to the time of the eruption of the twelve-year teeth, they are good for life, under favorable circumstances, and should be carefully looked after, as they are the most useful teeth for masticating purposes. When any hard substance is to be triturated and made ready for the digestive organs, it is unerringly placed between the six-year molars; or, does a boy wish to crush a walnut, it unconsciously finds its way to where it can be most readily accomplished. Those molars, grand in construction, central in position, are unquestionably the most valuable organs in the entire process.

The premature extracting of these first molars involves an irreparable loss. It destroys the contour and symmetry of the face divine, nor can art ever supply the want, however ingeniously the substitute may be constructed. Yet I have heard dentists who claim eminence in the profession recommend the early extraction of these noble teeth in anticipation of a crowded condition; indeed, I have had patients who have been robbed of them when in all probability there would never have been occasion for the removal of any teeth. Again, I say, with bated breath, cases have come under my observation where I have reason to believe teeth had been extracted, when in a perfectly sound condition, for the paltry fee of twenty-five cents. Anathemas rest upon anyone who would thus wantonly prostitute our noble calling. Never should a good grinder be extracted to make room for a less valuable one.

In regulating teeth, there are cases where it becomes imperative

to extract, but it should only be done after mature deliberation, as operators are often at a loss to decide at the moment, and may have to regret a hasty decision. Much depends upon circumstances ; but never extract in expectation of a crowded condition. It would be about as wise as to take the remedy before the disease had manifested itself. "Woodman, spare that tree."

I have written the foregoing to give my estimate of the first molar. Many a time I have found them, in my long practice, the only good masticators left, and thousands of partial plates are now in wear supported by these same teeth.

A FEW HINTS.

By G. V. N. RELYEA, L.D.S., Oswego, N.Y.

OBSTINATE BLEEDING.—I will relate a case just treated. The servant girl of my family physician called to have an inferior molar extracted. The fangs diverged, which caused it to come very hard, but, taking time and care, I brought it out safely. Here let me say, better be a minute in getting a tooth out than a second in breaking it. My patient left me, and, as usual, I forgot about it until the doctor came in the next morning to inform me that it commenced to bleed three hours after the operation and continued to bleed all night ; he also reported much pain combined with the bleeding. Calling to mind the difficulty in extracting, I suspected a fracture of the process. However, after a close examination I found no injury had been done, and after removing the coagulated blood it should have been syringed out with tepid water ; but I did the best I could under the circumstances, and, in a word, I arrested the bleeding, and the young lady went out riding the next morning. I will now give my manner of treatment when all the necessities and conveniences are at hand. After the accumulations are removed, roll up a piece of bulbous paper hard, about the size of a small pea. This, fully loaded with wood creasote (not the commercial article, but *pure wood creasote*), force down hard, and continue to pack as you would gold in a cavity of a tooth. When three-fourths full, roll a larger piece and place in the mouth of the cavity, which must be forced down and left in for several hours. Should it show signs of bleeding again, remove and repeat the packing system, and, if properly done, success is certain.

MODELLING COMPOSITION will be found an excellent temporary stopping. It is easily manufactured, is a non-conductor, and the temperature of the mouth keeps it in a condition to be easily removed, and it will wear for weeks and months.

A LARGE, coarse individual came to my surgery at Belleville to have a tooth extracted. After surveying the surroundings and taking my measure, he seated himself in the operating-chair. I brought out his tooth safely, when he turned to me and with a combined look of relief and anger, remarked in the most deliberate and emphatic manner, "If you hadn't got it out, I meant to have knocked you down." Query: Are not we dentists justified in having a revolver at hand to deal with such customers?

QUACKERY.

By C. A. MURRAY, D.D.S., Moncton, N.B.

That this is an age of quackery is apparent to all readers, for almost everywhere the eye is met with alleged astounding cures, effected through the agency of this, that or the other patent nostrum or fake remedy, some of which are harmless, many positively harmful, while very few possess any real merit, and all are unwarrantably extolled.

Man is truly a wonderful creature. Never satisfied, he is ever groping for some panacea that will bring youth to the aged, and the spring and activities of boyhood to the decrepit and infirm; and the individual who can best use printer's ink portraying the wonderful curative properties of his elixir of life has the largest number of dupes as followers.

While this is true as applied to medicines (or so-called medicines), it is by no means confined to the domain of physics, for, since the love of being quacked is in human nature as weeds are in our fields, the charlatan has invaded every profession, and dentistry furnishes an inviting field for his impositions. Here we find men who advertise infallibility, painlessness, best material and workmanship at rock bottom prices. Of such men the public should beware, and should brand them as frauds, for men who perform the wonderful feats in dentistry that these quacks advertise have no occasion to resort to such means to bring themselves before the public, much less to operate at rock bottom prices, nor would they keep their wonderful art locked up in the narrow confines of their own offices.

If the claim of painlessness, best material and workmanship were borne out by the facts of the case, such glaring unprofessional advertising would not be called for, these triumphs of skill and workmanship being the operator's best advertisement, and such services would readily command not "rock bottom," but "gilt edged," prices. This sensational advertising, and all unseemly puffing in the columns of the press of every little thing accom-

plished by these wonder-workers, should, to every intelligent person, be sufficient to put them on their guard against those operators whose work is not of that high standard of excellence to ensure them a patronage. We should try to succeed by merit, not by advertising some fake remedy or deceiving the public in some other way. "He who does well will always have patrons enough," is an old saying and a worthy one. What would be thought of a surgeon advertising "amputations" performed "painlessly" at rock bottom prices, and to the "full satisfaction and delight of the patient," or a lawyer advertising, "Divorces procured cheaply, secretly and with despatch"? Such men would be shunned by every honorable member of their respective professions, and merit the contempt of all worthy citizens, and their names would be stricken from the roll.

Why should we be more lenient? We should not. Lord Bacon has said, "Every man is a debtor to his profession, and ought, of duty, to endeavor to be a help thereunto." And we, if we are true to our chosen profession, will do all that lies in our power to elevate its standard and leave it nobler and more desirable than we found it upon our admission thereto. How, say you, can this be accomplished? This very pertinent question demands our most serious consideration, as whatever improvement is brought about must emanate from the members of our profession. It is true, as the law now is, we cannot lay our hands upon these dental quacks that degrade our profession, cast them from our midst and prevent them from practising their quackery hereafter, for, having fulfilled all the requirements for the graduation in any of the colleges or dental schools recognized by the Council and passed satisfactory examinations before the Dental Board of Examiners gives them the same rights we all enjoy.

I believe we should strike at the root of this evil first, and that is, the dental colleges of Canada and the United States should procure legislation giving the said dental schools power to cancel the diploma of any practitioner found guilty of practising quackery in its true light, or give to the Dental Council power to adopt rules and regulations respecting the enrolment of dental students, the registration of dentists and the suspension of unprofessional practitioners. If it would be possible to carry out these plans, then we would have a profession free from quacks and "Five dollar plate men." At present any person, being a graduate, may become a member of our profession by paying the required fee and passing a satisfactory examination before the Dental Board of Examiners. It matters not how undesirable, immoral or ill-bred he may be, we cannot prevent his admission.

Each person, before presenting himself for registration, should be compelled to present a certificate to the Registrar, setting forth

his age, place of birth, residence, place of education, and the name of the college or dental school from which he received his degree, and the time of attendance thereat, which certificate should be subscribed by the applicant, and certified by at least one member of the Dental Council, after a careful enquiry and personal examination as to the character and habits of the applicant to be a fit and proper person to be enrolled or registered.

To prevent charlatans from entering our profession is, to my mind, the best way of raising said profession to the position it should occupy. As the law now stands, it is within the province of the various dental colleges recognized by the Council to pronounce upon the fitness, or otherwise, of the graduates they belch forth upon us, and therefore the good work must begin with them. Let them do their duty, and this generation will witness the funeral obsequies of the last dental quack. The professional sentiment of these schools will not rise above that of the profession at large, nor will it fall much below. These schools, backed by a strong sentiment of loyalty to the profession, will become much more careful about conferring their diplomas, and we will not have it to say, "These schools gobble up every person who can pay the required fee, only to vomit them forth upon the profession, irrespective of all considerations whatsoever," but on the contrary it will be our proudest boast that they send forth none but men who have honestly won their diplomas and who would be an ornament to any honorable profession.

A healthy sentiment of loyalty to the profession does not, like the gourd of Jonah, spring up in the night. It may be of slow growth, but, as assuredly as we cultivate it, it will grow until it permeates the whole profession, throwing the responsibility of protecting its own honor upon the Council by means of or through the rules and regulations aforesaid; will do much towards promoting a sentiment that will watch well over, and carefully uphold, the dignity of our profession, and be a powerful adjunct of the college in rescuing it from the whirlpool of quackery, charlatanism and general disrepute to which it has been dragged by these shameless adventurers (five dollar plate men and painless operators), who have degraded the profession to the level of the ordinary unskilled laborer and made it a camping ground of the quack, charlatan and dental impostor. Then the quack salver will be a thing of the past in our profession; the (so-called) painless operators will operate in other fields for a living; best material and workmanship will be obtained at regular prices through the regular legitimate dental channels, while the rock bottom price man will extract comfort from the fact, that the prices paid him were more than an equivalent for the services (?) rendered.

Proceedings of Dental Societies.

DENTAL ASSOCIATION OF NOVA SCOTIA.

The first session of the fifth annual meeting of the Dental Association of the Province of Nova Scotia was opened in the Y. M. C. A. parlor, Halifax, on September 25th, 1895, at 9.30 a.m. The President, Dr. J. E. Wilkinson, of Halifax, in the chair. The minutes of the last meeting were read and approved.

The election of officers was the first order of business. The ballot resulted as follows: President, Dr. F. W. Ryan, Windsor; First Vice-President, Dr. F. H. Parker, New Glasgow; Second Vice-President, Dr. J. R. Fritz, Digby; Secretary, Dr. J. A. Johnson, Spring Hill. Drs. A. C. Cogswell, J. A. Merrill and J. A. Johnson were reappointed representatives to the Dental Board. Executive Committee, Drs. F. W. Ryan, A. C. Harding, J. R. Fritz, H. H. Bigelow, J. A. Johnson. Auditors, Drs. H. H. Bigelow and F. W. Stevens.

The report of the Dental Board was then read as follows, and laid on the table until the afternoon session:

To the Dental Association of Nova Scotia:

Mr. President and Gentlemen,—The Provincial Dental Board beg to submit the following report for the year ending September 24th, 1895:

DENTAL REGISTER.

The Register was published, according to the resolution of this Association, with the transactions of the annual meeting, in pamphlet form, and each practitioner was sent a copy.

Number of dentists registered September 25th, 1894,	72
Number of dentists registered this year.....	4
	<hr/>
	76
Number of names removed.....	2
	<hr/>
Number of names on Register at this date.....	74

The names added are as follows: H. W. Burchell, D.D.S., North Sydney; E. A. Randall, D.D.S., Bayfield; C. R. Murphy, D.D.S., Windsor; C. O. H. Webster, D.D.S., Pictou.

These gentlemen have all passed the matriculation examination except Dr. Webster, who is registered as a student previous to 1891.

Four students have passed the matriculation this year, which make eight in all. The names are: H. G. Dunbar—Dr. F. H.

Parker, preceptor, New Glasgow ; G. H. Thompson—Dr. F. W. Wright, preceptor, New Glasgow ; E. A. Randall—Dr. W. W. Tarr, preceptor, Boston, Mass. ; C. R. Murphy—Dr. W. Dill, preceptor, Windsor.

The persons whose names have been removed from the Register have died during the year. Dr. W. A. Payzant, of Wolfville, died suddenly in Halifax. Dr. Frank S. Morton, formerly of Granville Ferry, died at Maynard, Mass., of consumption.

The Dental Board pass as recognized the list of colleges accepted by the National Board of Dental Examiners ; also the degree of D.D.S. from the Toronto University, providing that the applicant for registration has complied with the requirements of the dental laws of the Province and the regulations of the Board.

LEGISLATION.

The legislation asked for by the Dental Association has been secured, and is herewith laid upon the table. The clauses relating to the curriculum and length of studentship, etc., are made general and comprehensive, so that changes may be made in these matters without having to secure special legislation.

The clause which deals with the matter of annual dues is just, gives all a fair chance, and allows each to assist in supporting the general interest of the corporation.

The clause relating to the extracting of teeth in public places will effectually rid our Province of any more "kings of dentists" and "street professors."

The Act of 1895 was published and sent to each member, together with a circular explaining its import.

A standard for matriculation is submitted to replace Section 36, Schedule B, in accordance with the resolution of this Association, which is now rendered possible by the Act of 1895.

Prof. H. Murray, of Dalhousie College, has devoted a good deal of consideration to the subject, and kindly prepared the course, which is comprehensive, and as near as possible to the requirements of the resolution.

It is recommended that the standard for matriculation be as given below, provided that the Board will accept in lieu of said examination a Grade "B" certificate of the Academy course of N.S., including the Latin qualification required in the schedule, or a Government certificate from any other Province or country, which, upon inspection, is proven to be equivalent to said examination.

It is recommended that the term of studentship remain at three years for the present.

It is, however, the opinion of the Board that in the near future it should be increased to four years.

THE NEW SCHEDULE.

The matriculation examination shall be upon the following subjects :

1. *Latin*.—Translation from specified books. Grammatical questions. Easy sentences of English to be translated into Latin.

2. *English*.—Writing from dictation. Questions on English grammar, including parsing, and the analysis of sentences. A short essay to be written on a subject announced at the time of the examination.

3. *Arithmetic*.—As much as is contained in Hamblin Smith's arithmetic.

4. *Algebra*.—Fundamental principles. Factoring. Fractions. Indices. Surds. Simple equations and quadratic equations with problems involving their use. Arithmetical progression. Geometrical progression.

5. *Geometry*.—First four books of Euclid, with easy exercises.

6. *Physics*.—As much as is contained in Gage's Introduction to Physical Science.

7. One of the following subjects at the option of the candidate :

(a) *Greek*.—Translation from a specified book, with questions in grammar.

(b) *French*.—An examination similar to that in Latin.

(c) *German*.—An examination similar to that in Latin.

(d) *History*.—History of England, or general history as in Swinton's Outlines of the World's History.

(e) *Chemistry*.—As much as is contained in Williams' "Introduction to Chemical Science."

It is recommended that the Board be authorized to secure the consent of the Governor-in-Council to the changes in the curriculum as soon as possible, but that the new schedule shall not go into force until October 1st, 1896.

Resolved, That the matriculation examination for the coming year be in all respects the same as last year.

With the consent of Dr. Parker, the Dental Board undertook the work of revision of the by-laws as outlined in the notice of motion given by that gentleman at the last annual meeting, and beg to submit the following changes and amendments to the by-laws :

The Dental Board beg to submit a draft of corrections deemed necessary to carry out the provisions embodied in the resolutions of the Dental Association. These are as follows :

1st. That a Treasurer be elected, instead of moneys of the Association passing only from the Secretary-Registrar to the bank.

2nd. That the Secretary of the Association be elected by that body at its first session in the same manner as the other officers.

3rd. It is deemed advisable by your committee to make changes in the Executive Committee, by making the President and Secretary of the Association members *ex-officio*, and the Association electing three members, making five in all, instead of six as at present.

The Board beg to ask for instructions from the Association in reference to those members who are two years or more in arrears for dues. Shall their names be erased from the Register?

The Board ask whether this Association deems it prudent that they should undertake the prosecution of persons who are practising dentistry without a license.

The afternoon session opened at 3.30, with the newly-elected President, Dr. F. W. Ryan, in the chair.

Minutes of the morning session were read and approved. The report of the Dental Board was the first order of business. The by-laws were considered clause by clause and passed as recorded.

Re clauses in report of Board asking for instructions :

Resolved, That the Dental Board carry out the provisions of Section 4, Act of 1895. Passed.

Resolved, That this Association request the Dental Board to bring action against such parties violating the dental laws as they may in their best judgment see fit and at such time. Passed.

Resolved, That the financial report be adopted. Passed.

The report of the Dental Board was then adopted as a whole.

Resolved, That this Dental Association having heard with deep regret of the death of Dr. F. S. Morton, of Granville Ferry, N.S., and late of Maynard, Mass., and of Dr. W. A. Payzant, of Wolfville, N.S., members of our profession ; therefore resolved, That this Association express our heartfelt sympathy with the nearest relatives of the deceased, and that a copy of this resolution be forwarded to said relatives and also embodied in our minutes. Passed.

Resolved, That the transactions of the Association, Register, and instructions to students, be published as last year, and that the Secretary of the Association and Secretary-Registrar of the Board be a committee for that purpose, and that two hundred copies be printed. Passed.

Resolved, That five hundred copies of the dental Acts, by-laws and code of ethics be printed. Passed.

Report of annual meeting of the Dental Board was read and ordered to be placed in the Minutes :

To the Dental Association of N.S. :

Gentlemen,—The annual meeting of the Dental Board was held on September 25th, at 2 p.m.

Dr. A. C. Cogswell was elected President ; Dr. F. Woodbury, Secretary-Registrar ; Dr. F. W. Stevens, Treasurer ; Professor H. Murray, Matriculation Examiner ; the Dental Board, Board of Examiners ; B. Russell, LL.D., Q.C., Solicitor of the Board.

Respectfully submitted,

A. C. COGSWELL, *President.*

F. WOODBURY, *Sec'y.-Registrar.*

Resolved, That the annual dues be the same as last year. Passed.

Resolved, That the Secretary-Registrar be paid \$100 for his services. Passed.

Resolved, That the next annual meeting be held at New Glasgow. Passed.

Resolved, That by-law No. XXIII. be amended to coincide with Clause VI. of the amendment of 1892.

Resolved, That by-law No. I. be amended by substituting the word August for September in the second line. Passed.

Resolved, That each member prepare questions to be deposited in the question box for the ensuing session. Passed.

Meeting adjourned.

Evening session opened at 8 p.m., President Dr. F. W. Ryan in the chair.

Moved by Dr. F. Woodbury, seconded by Dr. Fritz, that Section 23 of the by-laws be amended to read as follows :

These by-laws may be amended, repealed or suspended at any regular meeting by a two-thirds majority vote of those present, provided that neither the Board nor Association can control the by-laws relating to the other. Passed.

The question box was the next order of business and occupied the remainder of the session.

It was very profitable and interesting.

Upon motion, the fifth annual convention adjourned.

F. W. RYAN, *President.*

J. A. JOHNSON, *Secretary.*

VERMONT STATE DENTAL SOCIETY.

The Vermont State Society met in Montreal, on the 19th and 20th inst., and proved a success, socially and professionally. A full report of the proceedings will appear in the April number.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

DR. C. N. PEIRCE advocates trichloroacetic acid forced into canals to destroy any remnants of pulp.

PULP CAPPING.—Dr. H. J. McKellops uses a cap cut from asbestos paper covered with a paste of iodoform in glycerol.

DR. J. A. FRAZIER says that he has had success in bleaching dark joints in porcelain teeth with 25 per cent. pyrozone.—*Dental Office and Laboratory*.

FOR tenderness of a tooth after root canal filling, Mr. Baldwin uses fluid extract of Jamaica dogwood, asserting that it has a far better effect than tincture of iodine and aconite.—*Dental Office and Laboratory*.

TO POLISH THE GROUND SURFACE OF A PORCELAIN TOOTH.—Smooth the surface by using an emery disk with the engine, following with a cuttle-fish disk. Then polish the tooth on the lathe with a felt wheel, using pumice as a powder.—*J. Van Pelt Wicks*.

IT should be mentioned in the interests of antiseptic purity and suffering humanity, that a good stout toothbrush, plenty of water and some antiseptic dentifrice applied morning and evening afford a greater safeguard against many diseases than many people are aware.—*Sims Woodhead*.

THREE things go to make an ideal operator—thoroughness, gentleness, quickness, and one should possess these qualities in the order named. If gentleness of touch and manner were put first, then thoroughness must suffer; if rapidity were put first, then one might say good-bye to thorough work and to considerate work.—*Leonard Matheson in Dental Record*.

DR. GORDON WHITE uses chloropercha in which is dissolved 50 grains aristol to the ounce of chloroform. During the operation the tooth and instruments are sterilized. When the excavation is complete and the cavity wiped out with chloroform, a small quantity of the paste is placed on a small capping of paper which is placed in position and the chloroform evaporated by hot-air blast, leaving the capping securely fastened to bottom of cavity. A little thin cement is flowed over this and allowed to harden before introduction of filling.—*Cosmos*.

USE cottonoid between the rubber dam and your patient's chin, and prevent oozing of saliva.—*G. S. M.*

DR. L. OTTOFY recommends the use of architect's cloth as a substitute for tape in polishing the approximate surfaces of teeth and fillings.—*Items.*

LIQUID SILEX.—If you want what is sold under the name of liquid sillex, you can get the same thing, which is nothing more than silicate of soda, at any wholesale drug house for forty cents a quart.—*J. G. Templeton, D.D.S.*

DR. C. H. STRANG uses a combination of oxyphosphate and amalgam in children's teeth, or poorly organized teeth of adults. He mixes the alloy and mercury first, adds to this one-quarter to one-third cement powder, grinds to a dry powder, then adding the liquid to make a stiff ball, introduces to cavity quickly. It must be put in dry to be a success.—*Digest.*

FRACTURE OF INFERIOR MAXILLA.—A simple method of treatment for fracture of the inferior maxilla was described by Dr. W. W. Coon, of Alfred, N.Y., before the Eighth District Dental Society at Buffalo. This method consists of adjusting metal bands to one or more teeth in each fragment, and joining these bands by means of a stiff metal bar soldered to the buccal side of each band. The edges of the loosely adjusted bands are crimped so as to retain the cement used in the final adjustment.—*Cosmos.*

GUAIACOL-COCAIN CATAPHORESIS.—William James Morton, M.D., of New York, has an article in the January *Cosmos* on "Electro-Guaiacol Cocain Anæsthesia." The formula for the mixture used was :

℞ Guaiacol 3i
Cocain hydrochloral gr. v.

Making a solution containing eight per cent. cocain. He has used it successfully in such operations as excavating hyper-sensitive dentine, removing pulps, and in tooth implantation. The guaiacol is used as a solvent of the cocain, and also for its own anæsthetic effects, two-thirds less time and two-thirds less current being required than when an aqueous solution of the cocain is used by the cataphoric method. Dr. Younger, for whom anæsthesia was produced by this method for a number of cases of tooth implanting, expressed himself as decidedly in favor of cataphoresis with guaiacol-cocain as compared with the injection of cocain. It is claimed that the guaiacol holds the cocain in solution, and thus localizes its action, preventing its diffusion into the circulation and resulting toxic effects.

A HEATED instrument applied to the tooth will generally settle the question whether the nerve be dead or alive.—*Dr. Mitchell.*

IN applying nitrate of silver to decay in deciduous teeth, any excess upon the gum may be neutralized by iodine. This forms an iodide and instantly arrests spreading.—*Dr. Van Orden in the Pacific Gazette.*

FIRST PERMANENT MOLAR.—Dr. W. E. Marshall advises the removal of these teeth before the eruption of the second permanent molars in cases where there is not a likelihood of preserving them permanently. He strongly objects, on the other hand, to the sacrifice of the first molars after the second have erupted, on account of the bad effects on the occlusion. After the twelfth year every effort should be made to save even the roots of these teeth.—*Cosmos.*

CERVICAL FAILURES IN CEMENT FILLINGS.—W. Cass Grayston, L.D.S., commenting in the *Dental Record* on the working of white cement fillings, says that he finds, from an observation of osteo fillings inserted during the last ten years, that the cervical failure, so often alluded to, is, in his experience, the exception rather than the rule, and is inclined to think that when it does occur it is due to the use of cements that are difficult to manage. The filling, if sticky, is probably drawn from the cervical edge during the packing, or else owing to the rapidity with which it sets, it either never reaches this part or only in a crumbly condition. Grayston also, in the same paper, recommends chloropercha as a protecting varnish for cement fillings while setting.

EFFECTS OF OXIDATION ON CUT ALLOYS.—Dr. G. V. Black has followed up his laborious experiments on tooth tissues and amalgams by a series of tests of the effects of aging of alloys, or, in other words, the results of oxidation on cut alloys for dental amalgams. The experiments, as given in the January *Cosmos*, are interesting and instructive, showing that shrinkage of the filling is a direct result of oxidation of the alloy, and seemingly in direct proportion the one to the other. In every trial of alloys from different formulæ, though great variation of shrinkage was found, yet if a fresh sample of a given alloy shrank, an oxidized sample of the same alloy always shrank more. It was found that less shrinkage was noticeable in alloys containing from 60 to 65 per cent. silver. Oxidation of the cut alloys produced marked changes in the working qualities of the filling, and in the percentage of mercury required, as fillings from oxidized alloys work softer and smoother and do not set so quickly. The profession have been taken by these qualities in the past, and

manufacturers have labored to produce them by processes of artificial oxidation, neither party knowing that the resulting amalgam was caused to shrink. "It is evident," says Dr. Black, in conclusion, "from the results of these tests that changes must be made in the commercial handling of this material."

Correspondence.

REPLY TO "THE REASON WHY."

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—Replying to "A. B.'s" questions under the heading "The Reason Why" in last month's JOURNAL, allow me to answer them generally by ascribing what are, in my opinion, some of the causes of our present low status among the professions.

I consider the chief cause is the lack of that ideal in its sphere of work which a profession should have. Where the majority of the members of a profession have a high estimate of the importance of their calling, they are not very apt to do things which we would say are contrary to good ethics; and let me say here, I consider it just as much a breach of such ethics to do that which would deprive one's self of his due, as to cast aspersions on others of our brethren. Let me illustrate: The majority of us in my district virtually *guarantee* to fit satisfactorily those who come to have lost dental organs replaced by a plate. We may not say a word about such guarantee, but we willingly make over a denture two or three times for the same fee, which is equivalent to guaranteeing it in the first instance. Now, is this custom consistent with the practice of any profession? Do you hear of medical men giving attendance or medicine free after having discovered a mistake in their original diagnosis? Are we responsible for the fact that dentures can be more readily adapted to one mouth than to another? After being certificated from a power under government charter, should we be expected to do *anything* for *nothing*? I am convinced, in my own mind, that nothing short of the general adoption of a code of ethics consistent with the dignity of a profession will make a marked improvement in the status of dentistry.

Another cause, perhaps, is the inferiority of much of the dental work done in the past. Emerson says that "to do a thing well is to create a demand for that work."

The fact of some of us being too ready to listen to unfavorable comments on our brethren by patients is also, no doubt, a cause of

these same *commentators* feeling (if they do not so express themselves after they are out of the office), "I wonder if that dentist *does* take an interest in my case, or was he interested only because I told him about that other *bad* dentist?"

And then the lack of knowledge concerning the value and functions of the teeth is largely responsible for our not being made use of to the extent we are capable of. The education of the people through the local press to an extent consistent with their thirst for that particular kind of knowledge would, I think, materially help the people and the profession reciprocally. But this good can be overdone, even as a large amount of proper aliment would fail to help an invalid unable to assimilate it, and as such an invalid, by an attempt to force him to take such aliment, becomes in time surfeited therefrom, may we not infer that forcing people to read too much of such educational literature alluded to might lessen their desire to take advantage of the skill of the dentist?

I take it that the first remedy I have here recommended would prove the grand tonic which would enable the mass of the people to assimilate readily, thankfully and cheerfully all the educational pabulum we should deem wise to feed them.

X. Y. Z.

THE POWER OF THE PRESS.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—In reading your interesting editorial on "The Press—a Foe and a Friend," I am struck with the conviction that, to respectable practitioners, it is very little of a friend. But why? If respectable dentists do not advertise and the quacks do, why blame the Press? Would it not be wiser if, wherever there are a few dentists together, they would join hands, and instead of advertising their own individuality, they would form a fund to expose dental quackery, and would expose it impersonally? Would it not be worth the while of the Ontario Association to appoint a committee to draft a number of items of information—titbits on the teeth, and other matters which could be printed on sheets and circulated among the members. These could be used in the local press and the united fund used to pay for their insertion.

I have several times had editorials from the DOMINION JOURNAL inserted in our local press. If we fail to educate the public, we need not wonder if the boasting advertisers "educate" (?) them in their own way.

Yours, etc. L. D. S.

THE "BARBER-DENTISTS."

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—It seems to me that there is a contest going on in most parts of Canada, as to whether dentistry is to rise to higher dignity as a profession or be degraded to a lower—as a sort of *parvenu* trade. If we make comparisons between the ethics of medicine and dentistry, and the methods to which each resort to better their practice, we shall find that we have to take a very low seat. I am tired of alluding to certain disgraceful means of public advertising to which no respectable dentist resorts, but are we not coming to the position when we will find practitioners actually opening "dental shops" on a big scale, running a lot of chairs like barbers, and placing themselves as much beyond the pale of professional self-respect as would a private family in fairly good circumstances, who preferred to live in a shop, rather than in a private house? The public will judge us by our surroundings. If we select those which imitate the barbers, and depart from those which have always been ethical and decent, we must take the consequences of a loss of public esteem. No doubt the public will still go to their dentists who imitate the barbers, but the public will consider us as no longer entitled to respect as professional men.

Yours, etc. L.D.S.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—It is a bit of a mystery to me why our college graduates do not write more to the JOURNAL. They have had the advantage of a good preliminary and professional education ; they are "debtors to the profession," we like to hear from them, and I think they should be encouraged to use their pens as well as their pluggers. Often it is the case—I know from my own experience—that many defer doing something in this line, until, as you once editorially remarked, they can get time "to do something great." Now, we do not need long sermons, or even long articles. You have had several excellent long articles lately, well written, and a credit to the writers, but we have many quite capable of giving us something useful if they would not wait to get up too much steam. What has become of our friend Dr. Beacock, and where are the many old-timers whose brains must be crowded with ideas that would keep them green in our memories if they would but let us hear from them?

Yours, etc., L. D. S.

Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

THE QUESTION DRAWER.

23. *Q.*—What caused the acute inflammation and rapid forming of alveolar abscess after filling a tooth from which the dead nerve had been removed, and which had been treated and tested with cotton and eucalyptol for three weeks, as described in the Question Drawer of December, 1895?

It is difficult to explain why abscess forms after the most careful treatment. The case spoken of seems, by description, to have been properly treated. It is possible that a tooth having a large foramen permits inflammation or congestion to extend beyond to connecting vessels more readily, or it may allow too copious a flow of remedial agents through the opening and excite inflammation; also, the condition of the blood may be unfavorable at the period of the treatment; and—well, sometimes I don't know why.

C. A. MARTIN, Ottawa.

QUESTION.

26. *Q.*—What is the best method of applying cocain for painless extraction of pulps from teeth?

Reviews.

Principles and Practice of Dentistry, including Anatomy, Physiology, Pathology, Therapeutics, Dental Surgery and Mechanism.
By CHAPIN A. HARRIS, M.D., D.D.S. Thirteenth edition.
Revised and edited by F. S. GORGAS, A.M., M.D., D.D.S.
1,169 pages, 1,250 illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1896. Price, \$6.00.

Professor Gorgas is determined to keep this monument to the memory of the late Professor Harris in constant repair. That it needs it occasionally is a tribute to the progress of our science. That Professor Gorgas fulfils it is a tribute to his own industry

and to his reverence for the father of dental journalism and the founder of the first dental college. Perhaps there is nothing which more graphically shows the growth in the art and science of dentistry within the past fifty-seven years than to compare the first edition of 338 pages, issued in 1839, with the present issue. In reviewing the former, in the *American Journal of Dental Science*, in 1839, Dr. Solymon Brown said, "No dental work of exactly a similar character has ever been issued by the American press, and thence it comes in competition with the work of no living author on this side of the Atlantic." What a contrast to-day, with our libraries laden with text-books by the score and journals by the dozen! And yet this historic work, original in many ways in its conception and execution, is one of the literary and scientific achievements of a great and wise man, which posterity will not let disappear. To the student of the history of practical dentistry the first edition and the last are marvellous links, which should bind the hope of the present with the labors of the past, and suggest to us possibilities of the future. Comparing the barrenness of theoretical and practical knowledge of 1839 with the fertility of 1896, we have an amazing retrospect. While many additions have been made to our knowledge of the anatomy and physiology of the teeth and associate parts, dental pathology and therapeutics have undergone a complete revolution in all their relations to the gums, the peridental membrane, the pulp, the calcic deposits of the teeth, etc.; dental surgery in the treatment of dental caries, the use of anæsthetics, etc., has made equivalent and rapid strides with general surgery; prosthetic dentistry, while it has emerged from the restrictions of metallurgy, has, however, brought into practice the vileness of vulcanite and a deterioration in the way of cheap and nasty laboratory work, as well as a reckless regard among a certain class of dentists for the preservation of the natural teeth. Then, with great progress, some great evils have been born, as a law of nature which clings to the skirts even of our moral reforms. With the abandonment of superstitions, which are now ancient history, such as the unscientific cry against amalgam, the pathological prejudice against the extraction of hopeless teeth in alveolar abscess, complicated with excessive swelling, we have got into certain fads and fanaticism, before which, like the crown and bridge work craze, many prostrate themselves in thoughtless admiration, who in the sweet by and by, not very far distant, will find reason for reproach. Moderation is counselled, but few practise it, and those who do may perhaps be regarded as old fogies, behind the times. We have been unwittingly led into these remarks by the pleasure it gives us to handle the new edition of the only work we possess which brings the days of old back to us. The first edition was issued before many of us in practice were born. In face of the develop-

ments being made every few weeks in the immediate and collateral departments of science, it is safe to predict that dentistry in the near future will largely avail itself of entirely new methods of diagnosis and practice, and that we may even expect that the still greater and entirely neglected sphere of dental embryology will become a practical part of the highest standard of practice, and that it will not appear any more Quixotic to attempt the perfection of the tooth germ *in utero* than a few weeks ago it would have sounded if Professor Roentgen predicted he would be able to see through an inch board. It gives us the greatest pleasure to testify to the practical and suggestive value of Dr. Gorgas' labors on this new work. It is a new work with rich old associations. The share of the publisher needs no eulogy. Blakiston, Son & Co. never issued discreditable work.

Saturday Night, Toronto. The popularity of this unexcelled weekly is well deserved. We know no rival which is conducted with more, if as much, ability. It is in every sense the very best of its kind on the continent, its editorials alone being remarkable for their convincing force and breadth of view. It is one of the few weekly papers which are worthy of preservation in permanent form. While avoiding all vulgarity and sensationalism in its composition and adapting itself to the family circle, the editor, unwittingly perhaps, has obtained an influence which is destined to make *Saturday Night* one of the most powerful political factors of the Canadian press. It is a paper that every professional man should have in his office.

DR. D. D. SMITH, in a paper read before the American Dental Association on the "Offices and Eccentricities of the Dental Pulp," says that the pulp is the central figure, the important factor in every tooth, and to its care is committed the newly erupted tooth to readjust, recalcify, consolidate, strengthen and sustain the enamel and dentine. In young permanent teeth great stress should be laid on the importance of saving the pulp, as devitalization carries with it a more or less rapid retrogressive change in the quality of tooth material, and that without power to arrest it. Filling may prolong the existence of a tooth, but with the arrest of vitality in the pulp there is cessation of all vital sustaining action which hitherto assisted in its preservation; and not only so, but the imperfectly calcified enamel and dentine already built into the tooth, is now in contact with devitalized connective tissue, which in the imperfectly consolidated tooth becomes itself, probably, a source of disintegration and assists in its destruction.

Dominion Dental Journal

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VOL. VIII.]

MARCH, 1896.

[No. 3

HALT !

When manufacturers find that they have an over-production, they close down the mills, and save themselves the expense of the employees, whom they discharge. A manufacturer who sees the market glutted with his line of goods, has to choose between this policy or selling at or below cost. Many of the most serious failures in trade and commerce are due to over-competition and over-production. There is a limit to the wants of the purchaser as well as to his ability to pay, and this is specially apparent in hard times. In a country like Canada with a small population, there is a decided limit to the demands for professional careers, unless we mean to go into the business of encouraging our young men to educate themselves for professions which they must practise elsewhere. Dealing with this subject so far as it applies to dentistry, we must reiterate our belief, that we have reached the stage of congestion in the supply of dentists and dental students; and, moreover, that if this plethora exists in Canada it is no better in the United States. Art and science cannot travel too fast, but the production of their practitioners may, until of our physicians, dentists, civil engineers, architects, etc., it may, by and by, be said, as it is of the curate in England, that they are "the best educated paupers in the parish."

We are face to face with facts. There are to-day one hundred and sixty students in the School of Dentistry, in Toronto, and a large number who have yet to enter. There are more students indentured in the Province of Quebec than there are licentiates. We are putting our own money (not that of the public) into fine buildings which, in one sense, are a credit to their projectors. An estimate of \$40,000 has been made for the Toronto building alone. So far no scheme has been devised by which students outside of Ontario can be attracted. We have failed to discover from much voluntary correspondence sent us, and from many personal inquiries, any more sound reason for continuing this state of affairs than the fear that the Patrons in Parliament would succeed in an agitation to open the practice of dentistry freely to all comers if there was any movement on the part of the profession to restrict the production. But this is only an assumption. We have never been without our foes. They have stung us, but they have not succeeded. There has always been the antidote of public opinion to counteract their virulence. The public want dentists, but it is no object to the public to have them in such excess that the evils of excessive competition will demoralize the profession. In the interests of the public these evils should be considered. In the interests of the country at large, and the keeping of our population in our own Dominion, Parliament can have no interest in compelling a continuance of a state of affairs which is sure to drive many of our young men to foreign countries. "Where are these one hundred and sixty young men going when they graduate?" we asked in Toronto. "The Lord only knows," was the reply. Multiply this certain output by the prospective production for the next ten years, and unless we have a plague which will make specially short work of the dentists in practice, we shall live to see dentistry become one of the very meanest, as well as the most multiplied of the several harassing means of getting a living. At its very best in Canada, it is not, and never again can be, more than of mediocre profit, and the change is due to excessive competition. It is a simple sum in arithmetical logic to estimate the consequences if this competition is intensified.

The profession is under no obligations to the public or the Legislature to congest the practice of dentistry and produce conditions which must drive Canadians out of Canada. If every man in Ontario should want to study dentistry, the profession is under no compulsion to afford the convenience. It would be a merciful interposition if the bulk of the hundreds of young men who will probably pass through dental and medical colleges within the next five years, were obliged to go farming. What we want from our Legislature and Parliament, is more encouragement to farmers' sons to stay on the farm, and some suspension of the inducements to become preachers,

teachers, and practitioners. It is a fact that, to some extent, this thing is overdone in Canada, and some of our most eminent institutions may be said to exist for the purpose of persuading young men to make mistakes in life.

Is it not time to cry a "Halt"?

INFIRMARY PRACTICE.

The people in this country who will humiliate themselves to save a dollar are by no means confined to the "deserving poor." It is no real humiliation to the poor. To them we owe a duty as divine as charity can lend. But to put the average servant girl and the average mechanic, with the average wages, in the category of the "deserving poor" is to make charity a farce, if not a fraud. A visit to the indoor departments of our general hospitals will convince any observer of the gross abuse of these institutions by a class of patients who are not ashamed, in seal sacs and expensive jewellery, to accept free service side by side with street laborers, and even prostitutes. In richly endowed hospitals there may be some excuse for not discriminating against these people. But in our Dental Infirmaries there is none. When the people of Toronto or Montreal subscribe to erect and support dental infirmaries, it will be time enough to give the mean class an opportunity to sponge for free service. In the meantime, there should be strict scrutiny as to the circumstances of the large proportion of applicants. In the case of persons "formerly in good circumstances, but now by changed financial conditions compelled to accept such service as their reduced circumstances demand," it is only reasonable and right to give them the privileges of the Infirmary and to treat them with the most delicate consideration. But our own observation justifies us in believing that the large proportion of patients whom we saw upon two occasions in Toronto should be turned about their business. There are young men struggling for practice in Toronto and elsewhere to whom these people should go. The object of a dental infirmary at present is not so much for philanthropic purposes as to give the students practice. This can easily be accomplished in Toronto by proffering to the inmates of the various charitable and benevolent societies such services as they may require, placing the fees at the actual cost of material, and inducing each institution annually to establish a small fund, which would be drawn upon by the Infirmary in proportion to the services rendered. The question is likely to become a very serious one to a large majority of the practitioners of Toronto. We have witnessed in other spheres a philanthropy which has become a species of mild insanity. The underpaid

and overcrowded position of dentistry in Ontario and Quebec does not justify the profession in killing the geese that lay the golden eggs. There is, perhaps, not a dentist in the land who is not repeatedly called upon to do charitable work in the privacy of his own office. If the public who choose for the nonce to assume the garb of impecuniosity, and who are quite able to pay something, are to be permitted to swarm into dental infirmaries for free or comparatively free services, it may become necessary to ask the Legislature to endow the profession at large as one of the charitable institutions of the Province. At the same time, a poor-house might be provided for the reception of the disabled and disgusted dentist.

WAKE UP!

There are better journals than ours in the profession. We never assumed the position that this periodical is the *ne plus ultra* of dental journalism. But it is the only one we have in Canada, and if the Editor had nothing else to do, and if the publisher had a rich dental depot at his back to which it would be a direct and collateral financial profit, and with several other "ifs," the Editor feels confident that he could make this journal quite as good as any in existence, and that is saying a good deal; and it is not spread-eagleism, but a fact which long experience justifies. And yet, without any of the "ifs," it would not be at all difficult to make it very much more interesting if the dentists in Canada would feel more personal proprietorship in the JOURNAL. There is not one from Halifax to Vancouver who could not send us some good idea occasionally, even on a post-card; there is not a secretary of a provincial society who could not drum up more practical interest. Only a Canadian journal can do full justice to the Canadian profession. By prompt remittance of subscriptions and by occasionally sending something new, everyone could help.

HONOR TO DR. W. R. PATTON.

We are glad to inform our readers that Dr. W. R. Patton, our Corresponding Editor, Cologne, Germany, was given the title of Court Dentist, and now signs himself Konigl Hohenz, Hof-Dentist, Royal Hohenzollern Court Dentist. Dr. Patton is a Canadian, formerly from Quebec, where he practised for a short time, and left for Germany during the organization of the Dental Association. We are glad to learn of his success, and hope soon to have something from his pen.

ATTEND TO YOUR BOOKS.

Dentists, like physicians, are notoriously poor men of business. In this respect, the quacks are ahead of the best men in the profession. The quack is wise enough to know that if he does not get cash when his "work" is done, he will not be likely to get it at all. The honest dentist is generally fool enough to let people fool him, and would rather lose a fee than sue a patient. It is as wonderful how a large practice may have small financial results, as a small practice may have comparatively large results. It is all a matter of book-keeping and collecting. Once upon a time the credit system among dentists in Ontario was the rare exception; now it is nearly as bad as in Quebec. Once upon a time dentistry was what it should be, a lucrative profession; now it is chiefly so to those who have an established practice and who keep up with the times—and to the quacks. No one makes as much money in dentistry as your patent-leathered, fur-lined, diamond-decked humbug, whom every dentist knows to be an ignoramus of the first water, but whom the public judge solely by his diamonds and his veneer. The honest men might take at least one lesson from the charlatans. They should attend more carefully to their books and collections.

A POINT OF LA'W.

Last June a complaint was presented to the Board of Directors of the Royal College of Dental Surgeons of Ontario that a license had been granted to an applicant who had declared in the regular way that he had been in continuous office practice for five years previous to March, 1868, and was therefore legally entitled to it without examination. As the law did not place any limit as to when such applications should be invalid, the Board had only to accept the signed application and statutory declaration of the party concerned, which was duly made before a notary-public, which was further sworn to by responsible residents as within their knowledge, and grant the license. The question of veracity seems to turn chiefly upon the age of the applicant at the time he claimed to have been in practice—sixteen; and also as to the fact of his attendance for three months two years afterwards at a public school, and the absence, about a year before the five years expired, of the party with whom he claimed to be practising.

Irregularities of this sort frequently occurred at the time of the organization of the profession both in Ontario and Quebec, and

the Boards found that neither the courts nor the Legislatures were disposed to give them a free hand to exact absolute compliance with the letter of the law, as it was considered a retroactive principle that might be used for persecution as much as for prosecution. The dilemma was met by as strict enforcement as possible. That a number of such cases occurred is within our knowledge.

However, the position of the Board of the Royal College of Dental Surgeons in this particular case is legally and morally unassailable. The applicant complied with all the requirements. If the declarations were false, the Board had no possible means of knowing it at the time. If any party or parties are prepared to prove them false, they should at least put these proofs before the Board in such form that action can be taken without involving the corporation in a suit for damages should they be disproved. A misapprehension exists as to the powers and duties of the Board. To begin a case, a statutory declaration from the complainants is necessary. This means a responsibility which the complainants do not appear willing to accept. That seems to us the matter in a nutshell. We admit the embarrassing appearance of the case; yet the remedy, if there is any, is quite simple. To expect the Board to assume the responsibility in court of disproving the facts presented to it under oath would be to expose the members individually to actions for damages should the charges fail. The least it has a right to expect is that the complainants who assert that the claims are false should personally assume this responsibility.

A HINT FOR PHYSICIANS.

Every adult should have thirty-two teeth and two eyes. If they had thirty-two eyes and two teeth, and could get the former replaced as easily as the latter, the idiots who want their natural teeth extracted because they are irregular, and the ignorant who are indifferent to their preservation, would likely in time find a degenerate class of oculists, who would make a business of extracting eyes, changing black ones for blue, and *vice versa*. Dentistry deals with the most prevalent disease in existence. Fortunately, or unfortunately, it is a disease that rarely involves death. But we have to face the fact that not only is the public largely as indifferent to the loss of the teeth as to that of the hair, but that the frequent attention and expense they may entail opens temptations to the patient who wishes to sacrifice them and the charlatan who is ready to encourage this ignorance.

In occasionally referring to the profession of dentistry as overcrowded in Canada, we had to admit that we based this statement upon the average condition of the public intelligence regarding the functional value of the teeth. If the public even fairly well appreciated the importance of these organs, dentistry would not, and in fact could not, very easily be overcrowded so long as the present standard of admission and study was maintained. Towns and villages where now one or two dentists starve would support half a dozen in comfort. Imagine a city such as Three Rivers, in Quebec Province, with a population of over 12,000, giving a bare existence to only two dentists. What is the matter?

The matter is, briefly, not only the fact that the press has been so widely used by impostors that their imposture is the standard by which many of the people judge dentistry; that throughout the country districts teeth are extracted by the quart by ignorant or selfish physicians; but, that there are very few physicians anywhere who condescend to inform themselves of the diseases of the teeth and their connection with the departures from a normal standard of health. It is not our purpose to discuss this phase of the subject, but merely to allude to it *en passant*. What is wanted to-day is not so much that the dentist should be educated in medicine and surgery, as that the dense ignorance of the average physician should be illuminated by a better knowledge of dentistry. If the physician knew his duty in this matter and did it, dentistry in Canada would not be overcrowded.

OUR GASCONS.

Many ethical and honorable practitioners suffer from that excess of modesty which deters them from even self-defence. If one carries out the injunction to give the left cheek to the smiter who has smitten the right, he will get more cuffs than he deserves. The fear of being accused of personal aggrandisement dissuades many a man from exposing impostors. Fastidiousness in this respect may be carried far beyond the bounds of common-sense or justice.

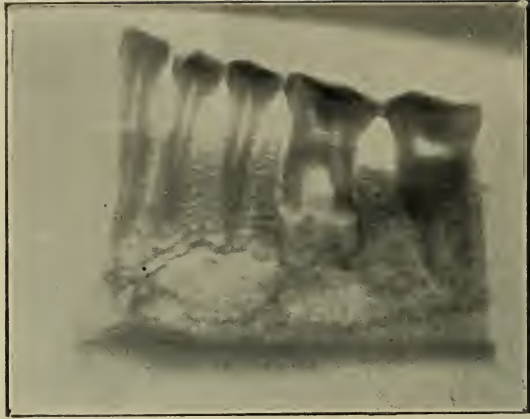
For instance, in every city or town where there are a large number of dentists, it is not improbable that there will be found the swaggering gascon who glorifies himself in the public prints; a shallow, ignorant, and showy pretender; who knows that his confreres know how little he knows, and yet who by virtue of pretence and lying, draws a large practice from among the credulous. The chief qualification to secure business, in his estimation, is to dress like a Parisian dandy, not realizing that he looks like a

professional gambler, and to make a display of new inventions, etc., in his office which mystify his victims. If you get him into a corner in explanation he exposes his ignorance, and he would rather perish or insult you than be caught in a controversy. Some good-natured friend who does know something, may enable him to make a display of expert ability, but he palms off crown and bridge work which he did not do as his own production, and even has the cheek to put his name to scientific articles he never wrote. The pamphlets and circulars he issues are stolen bodily from the productions of others, and he is so cunning one can never catch him on the open floor of a convention, where he knows his imposture would be exposed, and he would find his proper level. In what way can honorable practitioners meet such gascons? How can a self-respecting man contend against these braggarts and cunning *shysters*, who never miss the chance in every possible sphere, and at every street corner, to exalt themselves at the expense of abler and more educated confreres? "Educate the public," you perhaps reply. Let us know how *you* propose to do it, and what *you* are doing.

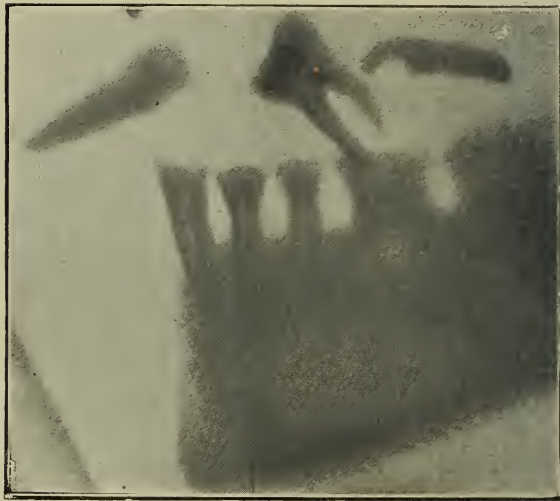
Post-Card Dots.

Would you mind recommending a first-class boarding school for boys in the Province of Quebec?

Bishop's College School, Lennoxville, is to the English-speaking population of Quebec what the Upper Canada College, of Toronto, is to those of Ontario—"the Eton" of the province. Founded 1842; situated at the confluence of two beautiful rivers, like English streams, in the heart of our provincial highlands; charming scenery and healthy surroundings. The buildings are very fine; there is the very best provision for the health and the morals, as well as the education of the boys; an infirmary, with expert nurses, etc. The facilities for boating and swimming are unsurpassed; instruction is given in the latter. The school staff is excellent, and the course includes all the useful branches in English, French, mathematics, classics, science and drawing—special attention being paid to arithmetic, French and elementary subjects. The fees are very reasonable. Twenty-six boys of Lennoxville passed from the school into the Royal Military College, Kingston. The education is "based on loyalty, honor, and straight dealing." Calendars can be obtained by addressing Mr. A. D. Nicolls, Secretary, Lennoxville, Que.



A section of inferior maxillary bone with cuspid, two bicuspids and two molar teeth, showing the interior structure of the bone and alveolar process; also, a very clear production of the roots of the teeth as they are imbedded in the deep process, with the nerve canals and pulp chambers showing very distinctly. The two roots of the sixth-year molar have been amputated nearly one-third of their length, which fact is very perceptible in the picture.



Section of inferior maxillary and three extracted teeth. This shows the roots of the teeth imbedded in the process, and the pulp chambers and nerve canals, but not very clearly. Both photographs taken through the dense cardboard back of a plate holder belonging to a small camera. (See Dr. Blanchard's annual address.)

Dominion Dental Journal

VOL. VIII.

TORONTO, APRIL, 1896.

No. 4

Original Communications

THE VERMONT STATE DENTAL SOCIETY.*

By E. O. BLANCHARD, D.D.S.

Mr. President, Ladies, Gentlemen, of the Dental Association of the Province of Quebec—through whose courtesy and generous hospitality we now find ourselves in this beautiful city—Members of the Vermont and New Hampshire State Dental Societies, and any visitors who may chance to be present,—In my official capacity I bid you all a hearty and friendly welcome.

We have assembled here, an agreeable commingling of different nationalities, states, and societies, and this occasion seems beautifully typical of the *oneness* of our professional, ethical and sympathetic ties; with pleasure do I now greet you all as friends, brothers and co-laborers.

As dental practitioners, we meet here to-day, members of one family, with common interests, mutual respect and unity of hopes and aspirations. In addressing myself to *you*, brothers of the dental profession, I assume that each one of you in choosing the profession of Dental Science considers that you have found the work best adapted to your natural abilities, that which will give you the most complete mental development and best assist you in making the most of your energies and capacities. Let us, at least, hope and believe so, for without confidence in ourselves and faith in our work, success is always uncertain.

There never was a time in the world's history when success in any profession or calling was more dependent upon earnest, per-

* President's Annual Address to the Vermont State Dental Society.

sistent labor and effort than now. Especially is this true of our own profession, for it is highly essential that a D.D.S., be well versed in medical science, he must be a skilful surgeon, something of a metallurgist, should have a practical understanding of chemistry, must excel as a mechanic of quick inventive faculties, besides possessing some knowledge of a great variety of high-sounding -ists, -isms, and -ologies.

The old-time "all-'round" physician, who very complacently and sedately treated both man and beast for all the various ills "that flesh is heir to," now exists only as a sort of "survival" in certain rural districts. He was a marvellous character, however, a conspicuous and striking figure in the mellow vista of the past, whose advice was sought in a great variety of matters, and whose rude and rusty turnkey was as great a source of awe and terror as was his primitive, portable drug store. His place is filled to-day by a number of "*specialists*," who have learned that life is none too long for the most brilliant intellects to properly study one particular portion of the human organism. Thus it is, also, with the *legal* profession, whose members once endeavored to grasp the entire realm of jurisprudence, but who now largely confine themselves to one particular branch of practice. In fact, nearly *all* professions and trades are rapidly becoming divided into specialties.

The constantly increasing activities of our time have continually tended to force men into special paths; therefore, success now largely depends thereon. The changes so rapidly effected in college management, in schemes of study, and student life, in the methods of inculcation and application of ideas, have registered a corresponding change in the thought and life of the entire country. Enormous increase of wealth, specialization of occupation, expansion of experience, multiplication of resources, comfortable environments and luxurious habits, have notably characterized the history of the past few decades.

Our profession has shared in all these tendencies; meanwhile, its progress has been phenomenal. The advanced position which we occupy *to-day*, however, was not effected by any one person, not set of persons. It is the accumulation of innumerable choice morsels from an army of earnest workers; therefore, we must not falter, but let us inscribe on our banner progression as our watchword, and with the battle-cry of truth and honor march steadfastly on.

It has been said, "No profession offers better opportunities for spreading the *truth* than dentistry." Let us never lose sight of this fact. It matters little which title we have earned at our various colleges, whether it be D.D.S., L.D.S., or D.M.D.; we all sail under the same flag, and are known by all as "doctors"—which, as derived from the Latin, signifies teachers, instructors.

Now, are we doing our duties as teachers? Are we properly instructing those who seek our advice and assistance? Are we as dentists educators *par excellence* of the people? I fear we have not always fully measured our influence in the community. How many of us clearly realize that good or bad dentistry exerts a corresponding influence on the morals of our patrons? Some profound philosopher has drawn a comparison between the benefits derived from friction matches and Sabbath Schools, somewhat in favor of the matches, on account of the many annoyances and trials of temper which are saved in the kindling of fires and a consequent saving in the use of large and wicked expletives. Doubtless a similar claim might be made for good, faithful dental work, as perhaps nothing is responsible for more sins of this nature than painful teeth and bad fitting dentures.

It is my sincere belief that the people can and should be assisted and educated in the natural laws of dentistry by professional advice on all proper occasions, both in and out of the office. Especially should we endeavor to instruct parents regarding the development and care of children's teeth. *Such* information will rapidly spread, going from one person to another, until at length we have a people well informed in this regard—an intelligent community who comprehend both the value of good natural dentitions and the proper care of them. They should also understand the necessity of skilful and practical dentistry, and learn to look upon the dentist as a faithful and reliable guide. People usually gauge their opinions of us by the satisfaction which our professional service gives, and they are largely influenced, also, by the impressions which neatness of person, bright, well-kept offices and our moral characters as well, may produce.

Are we capable of meeting these three requirements, and satisfactorily passing under the scrutinizing eye of an exacting and criticising public? Deficiency in any one of them tends to limit the circumference of our field of action and accordingly our influence for good. Are we as a profession duly impressed with the importance of thoroughness and excellence in our work? Have we as sharp an eye to durability as the Irishman who built a wall three feet high and four feet wide in order that, as he declared, if it chanced to be blown over it would then be higher than it was before?

Many practitioners strive to found a reputation from the durability of their work, and doubtless it forms an excellent foundation, but it is only a foundation, the other two requisites mentioned being essential to a complete structure. Refined and sensitive people cannot be expected to willingly patronize a professional man who is untidy and unattractive in person, and whose office is more suggestive of a blacksmith shop than of civilized apartments.

It is, also, an opinion of my own—and consequently there is nothing compulsory about its acceptance—that no dentist can do nice, thorough and intricate work while his rooms, instruments and tools are in such a state of disorder and confusion as to be far more conducive to insanity than to delicate manipulation.

Even children are observant of our appearance and habits. You may have heard of the small boy—one of the irrepressible sort—who refused to submit to the extracting of the second tooth unless assured that new instruments would be used that “hadn’t been in everybody’s mouth;” and when his parents endeavored to convince him that the dentist washed the forceps after use, much as the cook washes the knives and forks after meals, he declared that when his first tooth was extracted “the dentist only wiped them on an old rag and put them back in the case.”

The first few years of a dentist’s professional life usually form a criterion of his future career, and if, with strict integrity and patience, he faithfully and firmly adheres to duty, regardless of dollars and cents, his reputation soon becomes assured. Later on the influx of dollars and cents will amply prove this theory. He should not allow his account book and ledger to tell of immediate financial success so much as his standing in the estimation of the community. As the painter or sculptor keeps continually before his imagination an exalted ideal, so let us in the practice of our own art, set our standard high.

Let us also remember that the value of a thing always corresponds with the actual cost. The kindly smile, the gentle word, the indication of sympathy for suffering, the delicate care in the performance of painful operations, apparently cost little; their real cost, however, is found in the previous cultivation of sunny spirits and humane dispositions.

The professional skill upon which depends our success or reputation may seem comparatively easy to a mere observer, for he does not reckon the years of patient effort, the diligent study and practice, or even the financial expense which this skill cost us. And we ourselves should expect no more from our profession than we are willing to put into it in the shape of thorough, serious, earnest mental and physical labor.

You have doubtless heard of the shoemaker who considered *his* work just as important as the minister’s, and to illustrate, taking up a pair of boys’ shoes, said: “That boy’s body ought to be kept healthy, hadn’t it? I am goin’ to do my part; if he should catch cold some muddy day and get pneumonia or somethin’ of the sort, his father would have a heavy doctor’s bill to pay—and even then the boy might die. I can’t afford to put poor work into that job. Too much depends on it. I propose to mend them shoes as though my salvation depended on’t. I wouldn’t like to meet that

boy up yonder and have him tell me he suffered and died because I wasn't a faithful shoemaker. I couldn't stand that nohow. Do you think a vocation is a humble one when it deals with the health and lives of our fellow-creatures? I reckon not."

Now, if the shoemaker's philosophy will *not compare* for elegance with that of Herbert Spencer, it is, nevertheless, good sound common-sense. And, something after his manner, I would ask what profession deals more directly with the health, happiness and welfare of its patrons than dentistry through its intimate connection with mastication, the digestive and nutritive functions, and hence, with the fundamental principles of life? If time would permit, a long lecture might be based on the how and why of these generalizations, showing that the physical welfare and accordingly the moral character of our patients largely depends on the thoroughness and conscientiousness with which we do our work.

A subject which is largely discussed at the present time in connection with our calling is hypnotism. It is known as magnetism, mesmerism, electrical psychology, black art, but all are embraced under suggestive therapeutics or hypnotism. That which surpasses human understanding during one generation may be plausibly and rationally explained by the next; or, that which is the subject of investigation only among scientific scholars to-day is likely to become a matter of common knowledge in the near future.

It is a natural propensity of the human mind to regard with nervous apprehension that which seems weird, incomprehensible and dangerous, yet tempting. Therefore, the sooner hypnotism is generally understood, the sooner will the danger and fear of its agency be overcome. It has been brought before the public and freely discussed from various standpoints; yet little has been learned regarding its relation to therapeutics—as an alleviating and healing agent—in which relation it doubtless has distinguished virtues. Nor does it seem to be commonly understood that a person cannot be hypnotized for the first time without his or her knowledge or consent. The notion that an individual may without premeditation be deprived of his will and made, all unconsciously, to do the will, good or evil, of another, is purely fictitious.

The imagination plays an important part in hypnotism. It is necessary for the subject to *imagine* that he may be hypnotized, also that the operator *can* hypnotize. To be overcome, the mind must be, so far as possible, *concentrated* upon his thought; while the forces of will or desire should remain passive. The dentist who employs hypnotism as a therapeutic and anæsthetic agent, must, first of all, rely upon the willingness, credulity and

passivity of the patient. It is true that a person who has been hypnotized once can be more easily influenced again, and this is largely owing to the absence of fear or anxiety; then the remembrance of the first experience and the subject's consciousness of the operator's powers renders the mind more susceptible to the influence.

Hypnotism has shown that we are possessed of a double consciousness, or more properly, perhaps, of two selves—a conscious self and an unconscious self—and while the conscious self is busy the other one is noting and registering the auditory impressions which fail to reach the conscious self. It is supposed that the unconscious self is continually existing in a suppressed state during the waking hours, and that it is this second personality which executes the post-hypnotic act. A little study and investigation in this direction will harm none of us and we may derive some benefit therefrom.

In the January number of the *Dental Cosmos*, we find an article by William James Morton, M.D., describing the guaiacol-cocain cataphoresis and local anæsthesia. His method as described, is one of the most recent contributions to dental science, and is exceedingly interesting to us, as it is not only applicable to the soft parts in extracting and other surgical operations, but it is equally useful in obtunding pain in the sensitive dentine and nerve pulp. He describes guaiacol as a solvent for hydrochlorate of cocain, which may be made to penetrate the tissues by aid of the electric current. The advantages to be derived from this are the production of a very pronounced local anæsthesia, strictly confined to the parts to which it is applied, and the prevention of any toxic effects, as its absorption into the system is extremely slow.

There are several articles in recent numbers of our journals describing this method, and I only allude to this briefly as something that impressed me as being of value in our operations, presuming, however, that most of you are as familiar with it as myself. But while speaking of anæsthetica, I beg your indulgence for once more alluding to the omnifarious sons of Erin. An Irishman was badly injured and taken to a hospital. His anxious wife called to see him, but was told by the nurse that she would have to call to-morrow, because he was under the influence of an anæsthetic. "Arrah, bekase he's unther the influence of Ann Anasthetic, is it? Faith an' begorra, oi *will* see him to-morrow; and if oi find him under the influence ov Miss Ann Anasthetic, I'll have a divorce immediatly, if oi have to sell the goat an' pig. So oi will."

Very recently I was so fortunate as to be the guest of Prof. E. B. Frost, of Dartmouth College, and to have the privilege of seeing and assisting in a few experiments with what is known as

X rays. The experiments were performed in the college laboratory and were most interesting. Of course, very little is yet understood concerning this peculiar phenomenon, as its title of X or unknown rays indicate, but those who have contemplated the results of what has been performed by the X rays predict that it is possible to develop and perfect the method now used as much as photography has heretofore been improved, and that it may be carried to as fine a point of excellence as have the microscope and telescope at the present day.

When this is accomplished it doubtless will prove of great value as an assistance in our branch of science, for if we could have a mouth mirror in which the object glass could be substituted by some plate covered with barium platino-cyanide (which, it is said, shows the shadows of the objects exposed to X rays), we could then use a Crooke's tube from the exterior, and by placing this mirror in the mouth be able to examine the roots of teeth for an abscess or pulp canal for pulp stones, or by this means discover any hidden approximal cavity, or, in fact, any other pathological condition.

One among the pictures taken while I was present, was that of some teeth, the exposure of which was made *through* an ordinary plate holder, sufficiently clear to show the nerve canals and pulp chambers in these teeth. I think this was the first experiment of this kind to show a cavity in the interior of a bone or tooth. This picture, and a few others, I have here and shall be glad to show them to you.

Now, gentlemen of the convention, that the greatest good may come to our profession, to our patrons and to ourselves, let us enter freely and earnestly into the discussion and exchange of our different views. Let us not fear to communicate new ideas, for by giving we gain. In attempting to explain our various theories our thoughts become clearer, our horizon broadened, and our efforts for others render us more unselfish and liberal. On this twentieth anniversary let us renew our obligations to our society by giving it true and hearty support. The outlook for the coming year is full of encouragement. Assuredly we have a goodly past to review; and as dentists, as fellow-workers, as brothers with a common sympathy, and a common fellowship, a brighter future invites us to new victories. Therefore, "be it ours not to fight the battles of the past, but to live in unity, acknowledging one Lord and Master and every other man a brother."

Proceedings of Dental Societies.

VERMONT STATE DENTAL SOCIETY.

The twentieth annual meeting of the society was held in Montreal on the 18th, 19th and 20th of last month in the hospitable quarters of the Queen's Hotel, by special invitation of the dentists of the Province of Quebec. For several years visiting Quebecers to Vermont conventions were so generously entertained, socially and professionally, that they felt as if they had been permitted to open a sort of running account with no chance for repayment, and even when Brother Jonathan accepted the invitation to come into the arms of John Bull, junior, for a few days, the Canadians felt that Jonathan, rather than John, was the bestower of hospitality. The Queen's Hotel is new, first-class and convenient, and the manager, Mr. Fraser-Crierie, from start to finish, gave so much personal attention to the comforts of the visitors, that it seemed like a big family in a big home, with a big-hearted Pater. There was none of that chasing for tips, and small tricks of bleeding, characteristic of the management of some notable hotels. For the nonce the whole building was like a home.

On arrival of the train Wednesday evening, the visitors were in a few minutes in the Queen's, and after disposing of their luggage, four large sleighs, each holding about forty-five, were filled and were driven to the Athletic Club House, behind the mountain, where they arrived in time to witness the Montreal and La Montaguard Snow-shoe Clubs coming in on snow-shoes after the tramp over Mount Royal. The scene was unique and lively, the snow-shoers carrying Roman candles, whose colors gave a picturesqueness to the winter scene without any theatrical effort. The night was not too cold, and the boys were in jolly trim. The rooms were decorated with the Union Jack and the Stars and Stripes. An informal supper was then given the guests, and the Montreal and La Montaguard. turn about, sang some of the club songs and solos. Afterwards they removed to the large ball-room, where songs, dances, tugs-of-war, and lots of snow-shoers' fun, in which the guests participated, occupied two hours. The singing of La Montaguard Club was extremely beautiful, and as the Montrealers said, "We are nowhere with our French brothers when the singing begins." The snow-shoers gave Dr. Blanchard, Dr. Young and several of the heavy-weights the distinguished honor of "the bounce." Dr. Young thought he was going up all the way to the North Pole. After singing "Hail Columbia" and "God Save the Queen," the sleighs were filled again, and by twelve o'clock everybody was as snug as a bug in a rug in the cosy rooms of the Queen's.

THE VISITORS.

Besides the Quebec Province dentists, who reside outside of Montreal, there were present: W. H. Milliken, Boston; G. T. Phillips, J. G. W. Germond, Rutland; Chas. H. Clute, N.Y.; G. L. Curtis and wife, N.Y.; John Sherman, Hawkesbury; F. W. Van Nortwich, N.Y.; G. J. Buttman, M. J. Downs, N.Y.; H. D. Hickok, Malone, N.Y.; H. F. Cummings, Augusta, Me.; C. H. Wells, Huntingdon; Dr. Blanchard and wife, Dr. and Miss Turrell, Dr. Mound and wife, Rutland; Dr. Robinson and wife, Morrisville; Dr. Wright and wife, Dr., Mrs. and Miss Lewis, Dr. Wait and wife, F. P. Mather, Brandon; Dr. Taggart and wife, Dr. S. H. Hodge, Dr. Ellis and wife, Dr. Wheeler, Burlington; Dr. Parker and wife, Bellows Falls; J. M. Clarke, Burlington; Dr. C. S. Campbell and wife, St. Albans; Dr. J. H. Collins and wife, Granville, N.Y.; Mrs. R. T. Covey, Pueblo, Col.; W. S. Curtis, Randolph; A. O. Minott, W. H. Munsell, Wells River, O. L. Woodworth, Verginnix; A. R. Bell, Ewensburg Falls; F. P. Mather, Chester; F. S. Bellyea and wife, Brookline, Mass.; Annie L. DuBois, Randolph; F. G. McGovern, Verginnix; C. H. Garresh, wife and daughter, Exeter, N.H.; K. L. Cleaves, Montpelier; A. H. Ward, Leomestes, Mass.; Geo. F. Cheney, St. Johnsbury; P. M. Chase, Bethel; F. F. Fisher, W. R. Blackstone, Manchester; G. A. Bowers, A. J. Sawyer, Nashua, N.H.; Miss Dr. Bosworth, Rutland.

THE OFFICERS

were: President, Dr. E. O. Blanchard; 1st Vice-President, Dr. F. P. Mather; 2nd Vice-President, Dr. C. S. Campbell; Secretary, Dr. T. Mound; Treasurer, Dr. W. H. Munsell; Executive Committee, Drs. J. A. Robinson, K. L. Cleaves, H. Turrill. Dr. T. Mound has had over thirteen years of official life in the Society, and what he does not know about the office he holds is not worth knowing. Dr. Robinson had an immense amount of detailed work to conduct, and did it to the satisfaction of everybody. The absence of Dr. G. W. Hoffman, the State Prosecutor, was much regretted.

THE OPENING SESSION.

The meeting was called to order at 9 o'clock, when the Rev. Dean Carmichael gave the prayer. Dr. S. Globensky, President of the Dental Association Province of Quebec, then delivered the following address of welcome:

To the President and members of the Vermont and New Hampshire State Dental Societies:

LADIES AND GENTLEMEN,—As President of the Dental Association of the Province of Quebec, it gives me extreme pleasure to welcome you to our historic city—the metropolis of the Dominion. Realizing the measure of sacrifice which your kindly acceptance of

our invitation must have caused you, we appreciate the more fully your visit, as a social, professional, and I may say, as an international kindness. We have so often been under professional obligations to you, that, remembering the conventions held in Burlington, White River Junction and Brandon, we feel we owe you a debt we are unable to repay. However, we do not believe that you will regret your visit to Montreal. In many respects we have common interests and common history. Upon this spot in 1642, the Sieur de Maisonneuve laid the foundation of Ville-Marie de Montreal; but in 1535, when Jacques Cartier came here, he found a large Indian town existing on the present site of our city, not more than a few hundred yards from where you are now in session, and the name of which, Hochelaga, is still perpetuated in our limits. Montreal, from its earliest history, has been a city of romance; but as you know, to-day it is the commercial metropolis of Canada. From the banks of the St. Lawrence, expeditions proceeded to retaliate upon the colonies to the south, which now constitute your States. The war-whoop of the Indian and the assault of French and English forces marked that era. We have passed from that period of conflict into a history of peace and mercantile prosperity. Vermont and New Hampshire have grown side by side with us, in political separation but in peaceful rivalry. You will find in our city evidences of the fraternity and unity of the two races. You will hear the two languages and witness manners and customs that may be foreign to you, but which in their variety add a charm and picturesqueness to the city of which we are proud. Ladies and gentlemen, it is our sincere wish that you will enjoy your visit, as we enjoy your presence; and that you will convey back such pleasant professional and social memories that you will often desire to come back. On behalf of the members of the Dental Association of the Province of Quebec—and I am sure I may add, on behalf of the good citizens—I thank you for holding this meeting in Montreal, and most cordially say, in my own language, *Bien-venu*; and in yours, Welcome.

Dr. F. P. Mather replied as follows:

MR. PRESIDENT, LADIES AND GENTLEMEN,—In reply to the kind and eloquent words of welcome conveyed to us in the address of the President of the Dental Association of the Province of Quebec, I will say that the Vermont State Dental Society came to Montreal to hold its twentieth annual meeting in response to the cordial invitation of the delegation of dentists from the St. Lawrence valley, present at the meeting of the Society in Brandon last year. They warmly pressed their invitation upon us, which we gladly accepted, as some of our most valued members are residents of this city and vicinity, and we have been almost from the first indebted to our Canadian friends for much of the success that has

attended our conventions, in both a professional and social way. We are pleased that we have come at a time when our hearts have been so recently touched by the gracious words of Her Majesty the Queen, to whom you are so loyal and whom we honor and respect, words that so quickly dispelled the little cloud that for a moment seemed to threaten the friendly relations existing between our countries. As has been said, there are many interests in common between the inhabitants of this province and our people in the way of business and commercial affairs; we are well joined by several important lines of railroad. Our picturesque lakes send their surplus waters to the sea by the great river that flows past your doors, the same by which the early explorer who gave our lake and State their names, found his way to the heart of the continent. The fame of this beautiful city has reached all our people, whether they have ever beheld it with their own eyes or not. We are aware of its metropolitan character, its great and growing commercial importance, the learning of its professional men, the activity of its religious orders, its great public works and celebrated universities, and we have looked forward with pleasure to this visit, expecting to get much good during our short stay by exchange of ideas with the members of our own profession, of this province so justly celebrated for learning and skill. In behalf of the Vermont State Dental Society and their friends here present, I wish to thank the Dental Association of the Province of Quebec, and all others in authority for the cordial welcome already received, and in advance for what may be in store for us.

After some routine business, Dr. E. O. Blanchard, President, gave the annual address, which will be found on the first page.

Dr. A. J. Parker, Bellows Falls, read a paper on "Local Anæsthetics," which was well discussed.

Dr. G. A. Young, Concord, N.H., believed that faith in the drug has often more effect than the action of the drug itself. "I hate to have to say it," he said, "but cocain is all in my eye. (Laughter.) My name is George, and I can't help it. (Laughter.) If you put some water in a bottle and label it cocain, and pretend to inject a little of it into the gum it will have as much effect as the real article. It makes no difference whatever what you have in the bottle. You may call it hypnotism, or what you will, but the fact of the matter is that you can use what you like and the same results are secured. I take no stock in local anæsthetics, but if you must use them, let them be salt and water; or, better still, pure water." (Laughter.)

Dr. Wait, of Boston, described the uncertainty of cocain as a local anæsthetic, and the undoubted risks which must be run in its employment. He has given up gas because he could never attain certainty with it. Sometimes a certain amount would hold the

patient through the longest operation ; again, in the case of another patient it would scarcely have any effect. There was a difference, too, in the effects of cocain, which was undoubtedly a heart paralyzer, and in the employment of which he had more than once trembled for the results. He had found, however, that whiskey taken internally, or by injection, had a rallying effect, and he could recall more than one case in which if he had not tried this, the patient must have died. Hypnotism in dentistry he described as "poppycock." He was now using electricity as an obtunding agent in the form of cataphoresis, and he was hopeful of being able to perfect the apparatus which he employed in its use.

Dr. W. George Beers deprecated the idea that it should go abroad that dentistry was such a serious business as to require powerful anæsthetics. This was hurtful to the profession, and it conveyed a wrong idea to the public mind. He did not know how it was with Americans, but he could speak for Canadians, and say that they found no such extreme necessity for the use of anæsthetics as had been suggested in the discussion. Perhaps the Canadians were denser and therefore less susceptible to pain—(laughter)—but he knew in his own practice he did not need, in the great majority of cases, to use either a local or a general anæsthetic. To be sure, there were serious cases in which it was necessary to produce anæsthesia, but the percentage was small. The every-hour business of filling teeth for everybody was being magnified far beyond reasonable limits, as of such intensity that resort must be had to some obtundent, as if a tumor or an extremity was to be amputated. We should welcome and investigate all pain-destroying suggestions, but a great deal of mischief was done by magnifying the terrors of operative dentistry. The treatment referred to by Dr. Wait was under trial in Montreal by two or three practitioners.

Dr. Lewis, of Burlington, believed in ether, but he always gave ether with air, just as you should take alcohol with plenty of water. If you took alcohol straight you might expect unhappy results ; if you took it with water, it made you happy. (Laughter.) So with ether. Let it be given with air, and you simply had the loss of sensation, which was what you desired most.

Dr. G. Lenox Curtis, of New York, described his experience with cocain, some of which were gruesome enough. He ascribed the grey hairs in his head to the narrow escapes of some of his patients through its use. In some cases what would be just right for one would bring another to death's door almost. He had found it safe to precede the use of cocain by giving the patient the homœopathic drug gelsemium, ten drops of which dissolved in four ounces of water might be administered to the extent of one teaspoonful, or two at the utmost, before using the cocain or other

anæsthetic. Cocain was a poison ; it was also a heart paralyzer, and it should be used with caution. Its character and effects should be studied, and there should be an intimate knowledge of its use before it was employed.

A demonstration of cataphoresis, for the purpose of obtunding sensitive dentine, was given by Dr. Gentles, the apparatus employed being an eight-cell battery of the Julien type (with a maximum discharge of sixteen volts), and an eight-point switch-board to add one cell at a time. The rheostat was a Willms dry current controller (maximum resistance of 100,000 ohms, min. .001 ohms), a volt and milliampere meter.

Patient, G. W. Oliver, L.D.S.; cavity, right lower second molar, coronal cavity very sensitive. Rubber dam adjusted, and a solution of cocain, grs. vi., guaiacol, \mathfrak{z} i., as recommended by Professor Morton, was applied. The current from four cells was turned on and raised to two volts, and one-fifth of a milliampere reached. Patient indicated feeling it; after five minutes the current was raised to three volts—no appreciable difference on milliampere meter. This was continued for eleven minutes, when the current was turned off, the cavity was tested, but still found slightly sensitive. Another application of 30 per cent. solution of cocain was applied for six minutes, and a pressure of nine volts was reached at one milliampere quantity. When the current was turned off, the cavity was found practically devoid of sensation, and was prepared by one of the visitors, who declared himself satisfied with the result.

THE CLINICS

As usual were very interesting : Dr. Belyea, of Brookline, Mass., " Practical Crown and Bridge Work " ; Dr. G. A. Young, Concord, N.H., " Method of Restoring Broken-down Front Teeth by use of Gold Facings " ; Dr. J. E. Waitt, Boston, Mass., " Aseptic Atomizer, Flexible Nerve Brooches, etc." ; Dr. G. A. Bowers, Nashua, N.H., " Method of Procuring an Absolutely Correct Bite in Bridge Work, Contouring with Gold, using the Mechanical Mallet " ; Dr. C. H. Gerrish, Exeter, N.H., " Plastic Filling, without the Rubber Dam ; " Dr. W. R. Blackstone, Manchester, N.H., " Operations with Mechanical Mallet " ; Dr. G. Lenox Curtis, New York, " Oral and Facial Diseases." It would be quite impossible to do justice here to the interest shown in these clinics, and it will not be deemed invidious to refer specially to the skilful operations performed by Dr. Curtis, without in any way disfiguring the face.

Dr. G. Lenox Curtis' clinics proved highly interesting and eminently successful. Out of one dozen cases presented, he operated upon six of them. Among those for consultation, three were of nasal stenosis, in which one side of the nares was so completely closed by tumors and deflection of the septum that breathing

through the nose was well-nigh impossible. This he claimed a cause for deafness in the ear of the affected side, as was clearly demonstrated in these cases, in consequence of catarrhal inflammation. He also said that the disagreeable habit of snoring is acquired from similar closures of the nostril. He also suggested, the only method of correcting these evils was in removing all abnormal growths, straightening the septum, and local, stimulating treatment within the nares. This is, he claims, the means of correcting that most distressing complication of hay fever and asthma. Particular stress is laid upon the fact that until the nasal breathing is established, mouth-breathing will continue.

Dr. Curtis said he could best serve the dentists by giving them a practical demonstration of how to treat alveolar abscess. He soon found a willing patient among those present.

Allow me first to show you how to find the affected tooth. With this heavy steel instrument (one the size of an ordinary plugger) percuss the teeth as you now observe me doing. Get the resonant tone as you find in the healthy teeth, and continue around the arch until an abnormal sound is detected. When the diseased organ is reached, as is here clearly demonstrated, the tone is dull, and as I have named it, leaden, as if the instrument came in contact with a yielding substance. You will get a similar tone to this in cases of pericemental inflammation. While the enamel is usually discolored in these cases, this and the list of hot and cold applications to the tooth is not always reliable in ascertaining its vitality.

Here we find the pulp of the left central incisor devitalized, and the tooth abscessed; the fistulous opening in the gum directly over the lateral incisor. This is not an uncommon occurrence, for we frequently find the fistulous opening far away from the source of trouble. In such cases I advise the alvatomomy to take place directly over the apex of the root. The fistula will usually cure and heal of itself after it has been thoroughly cleansed and carbolic acid forced through it, or even the burr or curette. First, I will open into the pulp chamber from the palatal surface, making the opening large enough to allow free access to the canal, which as you see I seam out with the Gates Gliddell drills, of various sizes, until I am positive of having reached the apex.

Thoroughly cleaning and sterilizing the canal and drying it with the Darby points, which are the best and most satisfactory for perfectly drying the canal, again sterilizing it by the hot-air blast until as you see the patient is in pain from the intense heat it causes, we have the dentine dry, and it will receive the chloroform like a blotting paper, which, by its capillary attraction, draws the fluid to the apex and into the open canaliculi. The chloroform is best introduced into the canal by means of a hypo-

dermic syringe. The gutta percha canal points I now place into the canal, and the chloroform immediately attacks them and forms a chloro-percha, which I believe forms a more perfect canal filling than any other material. The canal is now packed solidly with gutta percha, and at some future time, the cavity covered with gold.

I will now open through the gum and alveolar process to apex of root with this spear-pointed drill, first, as you see, injecting cocain into the gum through which I am to operate. I now, with this rose-head burr, pass it beyond the apex into a cavity in the alveolar process made by the abscess, which is as large as an ordinary white bean, burr away the sac and freshen the edges of the bone, and with this curette scrape out the debris and follow this by thoroughly syringing the cavity with peroxide of hydrogen, hoping to boil out all remaining fragments. Now, to render the part in as normal condition as possible, I force into cavity a hot 1 per cent. solution of chloride of sodium. The after-treatment consists of keeping the face frequently in ice-water to prevent the accumulation of pus and the face swelling.

Should any purulent discharge come from the wound within the following day or two, it should be syringed out within the cavity as before, and inject two or three drops of pure tincture of iodine into cavity and leave there. This repeated, if necessary, every two or three days should be sufficient to effect a cure. Over-treatment in these cases is too often cause of failure.

Abscess of Antrum.—This patient, Mrs. S——, aged 48, who, as you see, is in feeble health, quite emaciated, and shows marked signs of long suffering, gives the following history: Suffered for three years with severe neuralgia in head, especially right side. In May, 1895, right superior third molar root extracted, wound did not heal completely. Saw Mrs. S. first time in October, 1895. Small discharge of pus from socket of the tooth. On probing felt some rotten bone, and suspected a broken tuberosity. On opening the mucous membrane over the tuberosity, found no sequestrum or broken bone, and could feel no root of the wisdom tooth. Sent the patient away with instructions to report again in a month if the discharge continued. Heard no more from her until the beginning of present month, when she wrote saying that the discharge had not quite disappeared.

I am asked to examine her mouth and ascertain whether the right superior maxillary is diseased at the condyle. The mucous membrane, beginning at the line where the second molar was and extending back over the condyle and for about an inch along the cheek, is considerably inflamed. Likewise we find an inflamed spot at the distal edge of the hard palate. These in themselves are of little significance, for we have all seen similar conditions

from undue pressure of the plate as here shown by the ridge in the mucous membrane. These spots to me, however, indicate a deeper seated trouble, one of which having been at no distant time ulcerated in consequence of necrosed bone. I find here upon the margin of the gum a drop of straw-colored fluid, which has oozed from an opening in the vicinity of where the root had been extracted. This color of fluid is pathognomonic of necrosis of bone. Here you see, with this delicate probe, I have finally been able, but with difficulty, to find the opening which leads into the antrum. Upon the removal of the probe I am unable to get the characteristic odor which is usually peculiar to the diseases of the antrum. From the history of the case, and from the inflammation described, I am convinced that we have here an obstinate disease of the antrum of long standing, due no doubt to the abscessed teeth and possibly also to the root, which was recently extracted. I hear someone say the history of the case and the present signs are not sufficient to warrant a diagnosis of virulent antrum disease. I will therefore before operating try to satisfy you on this point, and show you how to clearly diagnose such a condition. In this syringe, which has a very delicate point, is half an ounce of pure oxide of hydrogen. I will inject this into the antrum through this opening in the jaw. If there is nothing more than mucus or slight inflammation of the antrum, the effervescence which will pass out through the nose will be slight in amount and light in color. The gravity of the disease will therefore be indicated by the amount and character of the discharge. Now you see what a great quantity of black, green and offensive discharge there is, so nauseating that the windows must be raised and some of you obliged to leave the room. From the expression of your faces I conclude this diagnosis is very satisfactory to you, and you hear the patient declare she already experiences a sense of relief from the pressure heretofore. The patient being so adverse to taking ether we will employ a 4 per cent. solution of cocain, injecting it freely into the gum around which we will operate and into the antrum. I have used in all twenty minims; first, as you see, having administered to the patient an ounce of whiskey to counteract the depressing influence of cocain, and to improve the already feeble pulse which doubtless is largely due to pyæmia from which she had been suffering for a long time. I expect to make this operation painless by this injection. As you see, I have made a lineal incision extending from the location of the second molar back to the condyle of the jaw. Cutting clean through the periosteum and the dead bone underlying it, the rough edges of which my knife grated upon, with my probe I am enabled to outline a large area of necrosed bone which involves the distal half of the floor and nearly the entire posterior wall of the antrum. In

removing this, you see the gushing forth of thick, black, granular, offensive pus. With this curette I am now able to scoop out the contents of the antrum, which is filled with granulations and pus—fully three ounces. This deluge of blood which follows their removal shows the long engorged state of the blood vessels. At present we will make no effort to check it. I have now thoroughly scraped out all the necrosed tissue, and by the aid of peroxide of hydrogen and hot water have cleaned out all the debris and checked the hæmorrhage. We will now sterilize the cavity with a strong solution of bichloride of mercury (acidulated), dry it, sifting in a liberal quantity of aristol, and pack it firmly with bichloride gauze for the purpose of preventing secondary hæmorrhage and keeping as near as possible an aseptic condition.

As you have observed and as the patient has stated, she has realized little or no pain during the operation. She will now have a milk punch and be taken to her home; sulphate magnesia later in case of fever; drop-doses of tincture of aconite every half-hour until patient perspires freely; milk punches every two hours; and ice-cold applications to the face to reduce inflammation and prevent suppuration; also mouth bath of phenol-sodique. The patient passed a comfortable night, having but one degree of temperature; the following morning enjoyed broth and gruel, but remained in bed during the day. The face was but slightly swollen, and she presented an altogether favorable condition. Forty-eight hours after the operation I removed packing which was blood-stained, dry and free from pus. I douched the antrum with peroxide of hydrogen-bichloride solution, and packed as before, but loosely, and left her in care of her surgeon, Dr. Stephens.

The next case to report for operation is extraction of root of tooth under cocain. This root, which you see well imbedded in the gum, is doubtless abscessed, and although quite firmly attached I will try to demonstrate the simplicity of this instrument in the extraction of roots.

I have injected freely a 4 per cent. solution of cocain into the gum on the buccal and lingual side of root. The principal object of using the elevator is to avoid destruction of the hard and soft tissues surrounding the tooth, which is usually the case when forceps is used, the result of which is too often extensive inflammation and necrosis.

As you observe I pass this delicate instrument down along the side of the root until the firm alveolus is found; with the other hand I get a firm hold of the patient's jaw, steadying the head against my chest with my arm. I then lower the handle of the elevator, which I firmly grasp in my right hand one or two degrees below the horizontal line. With a firm and quick upper thrust of

the instrument, whose point is slightly imbedded in the root, I elevate it from its socket with scarcely a break in the continuity of the soft tissue. This, as the patient tells you, was painless, as the blood is already coagulated in the socket, which is nature's and the most fitting dressing to exclude air and disease. It will, I believe, heal with the slightest amount, if any inflammation.

This patient complains of loss of speech. This comes from a variety of causes. The most frequent is due, perhaps, to inflammation of the vocal cords. The history of this case is, that for nearly a year, and without any apparent or acute cause, the patient has been gradually losing the use of his voice. His physician placed him upon iodide of potassium treatment with apparent improvement for a short time. He did not bear this treatment well, and it was discontinued. Examination reveals an intense inflammation of vocal cords and all adjacent tissue. There is also considerable hypertrophy of these tissues. The vocal cords themselves are irregularly enlarged, likewise irregular in their action, the left being almost paralyzed. Pharynx highly inflamed, the tonsils normal, but the uvula extremely long and large, and dangles down at the base of the tongue. You will also notice that from the posterior nares large quantities of stringy mucus cover the posterior wall of the pharynx. This condition indicates nasal obstruction, and in order to check it the abnormal growths in the nose must be removed. It is my belief that tuberculosis is always preceded by nasal catarrhal inflammation, and until this is corrected a cure cannot be accomplished. The throat condition, as here presented, much resembles that of tuberculosis, but let us hope to find another cause that is more amenable to treatment. Examination of the nose bears out my statement and shows clearly the cause of the excessive catarrhal discharge. The right nasal passage is nearly obstructed in consequence of hypertrophy of the inferior turbinate, and a large spur on the septum which extends out into the nares fully one quarter of an inch, until it joins the turbinate. This extends back nearly two inches into the nares. On the left side there is a large posterior spur on the septum, and an unusually large turbinate as seen on the side just described. All we can do for him this afternoon is to perform uvulotomy, and to remove the anterior nasal spur. As you see I have removed two-thirds of the uvula. By this we hope to prevent such a flow of mucus into the larynx, and lessening of the irritating cough that has been so annoying to the patient. We will cocaineize, and with this saw remove the spur which will greatly increase breathing area. You will now observe how increased breathing is established, and how quickly, by the use of peroxide of hydrogen, the hæmorrhage has ceased, but lest it should recur during the night, I will tightly pack it with

antiseptic gauze which may be removed the day following, and by frequent spraying with some of the cleansing solutions the mucous membranes will soon be found covering the exposed bone. A similar spray or gargle will be all that is required for healing of the uvula. I advise this patient to place himself under the care of a nose and throat specialist.

THE BANQUET

Was a decided success in every particular, owing to the whole-souled heartiness among the Quebec entertainers. The officials of the Board, the College, the students vied with each other to give the guests a rousing reception in true Canadian style, and with all respects to grand old Ontario, no province can excel Quebec in this way, when the French and English pull together, as they always do, at least, in dental organization. Two hundred sat down to a splendid menu in the beautifully decorated dining-room of the "Queen's," which was fraternally hung with the Union Jack and the Stars and Stripes. The menu cards displayed the flags of the two nations crossed, and under them the motto, "May they ever be united." The attendance was simply perfect, and the menu a credit to the management and the *chef*. As the party entered the room the orchestra played "Hail Columbia," as a compliment to the Vermonters. Dr. Beers occupied the chair, having on his right Dr. and Mrs. Blanchard, Dr. Brewster, Dr. G. Lenox Curtis and Mrs. Curtis, and others; on the left, Dr. S. Globensky, Deputy Surgeon-General F. Wayland Campbell (Dean of the Medical Faculty of the University of Bishop's College), Dr. T. Mound and Mrs. Mound. Dr. F. A. Stevenson, Dr. J. H. Bourdon and Dr. Maillette occupied the vice-chairs, and the students of the College were present, and presided over by Mr. T. Morrison.

After enjoying the racy things which Mr. Frazer-Crierie had so lavishly provided, the chairman called the first toast, that of "The Queen," remarking that Her Majesty, who is about entering upon the sixtieth year of her reign, had won the respect even of those who are not her subjects, because of her purity of life and nobility of character. She has witnessed the birth and death of empires, the rise and the fall of sovereigns and premiers and leaders, while her own empire has extended in almost every part of the civilized and uncivilized world, until, as it has been said, nearly every fourth person on earth owes to her allegiance, directly or indirectly. The chairman said that he was sure Brother Jonathan, representing a nation distinguished for its respect for women, would join their Canadian brothers in drinking the health of Queen Victoria as one of the best and wisest of women, whose social and sovereign influence had always been exerted in the interests of purity in court and home, and peace on earth and good-will to mankind. "The Queen! God bless her!" Drunk with cheers.

In proposing the toast to "The President of the United States," the chairman referred to the occasional family squabbles which occurred between John and Jonathan. No well-regulated family seemed to be able to keep house without these little spats. As Canadians, we were uncompromisingly loyal to our Imperial tie, and as an important outpost of that Empire, felt it our duty, come weal, come woe, to stand by the old country, even though we Canadians should be the chief sufferers. We are more proud than afraid of our numerically weak position, as we mean to do our duty, and that is all that is expected of us. But none more than Canadians wish, that the cursed *canaille* of press and people, who love to foment ill-will between the two great nations, could be exterminated. When Mr. Cleveland issued his manifesto a few months ago, it would not have been possible to propose this toast, or to display at our banquets the Stars and Stripes, but to-day wise and calm councils had prevailed and we understood each other better. The chairman proposed the toast of the President not as the nominee of his party, but as the representative of the sister nation, with which we desire to be the truest of friends and the most reciprocal of neighbors. The toast was received with cheers.

The next toast, that of "The Armies and Navies of Great Britain and the United States," the chairman said, had been placed on the list advisedly, in order to emphasize the fraternal relations desired between Britain and her young son Jonathan. Everyone in the room could use their influence to remove prejudices and to give fair play. We can show our teeth to each other professionally, but we should cease to do it politically. We can even shed each other's blood in clinics, but it would be a crime against civilization to do it in the field of war. The chairman ended by paraphrasing the jingo song:

"We do not want to fight,
But by jingo, if we do,
We hope, dear Brother Jonathan,
'Twill never be with you."

The orchestra played "Hail Columbia" and "Rule Britannia," after which Deputy Surgeon-General Campbell replied for the former part of the toast. The Doctor had just come from duty, and was in military uniform, and the British red-coat was warmly applauded. He spoke eloquently of the growth of the navy especially, and the fact that Britain was determined always to have afloat a navy more than twice equal to that of any two other nations. He showed the necessity for this in the government of so wide-spread an empire, and of Britain's custom of getting justice for the humblest of her subjects. Lieutenant-Colonel Stevenson, who had commanded the Montreal Field Battery for over thirty years, supplemented Dr. Campbell's remarks by a witty speech,

which made everybody as happy as himself. He alluded to his marching under the British flag in 1858 through the streets of New York, at the head of his battery, in company with the celebrated 7th Regiment of New York, of whom there were some members present.

Mr. W. H. Towne, representative of the S. S. White Dental Co., responded as follows for the United States :

"With the most profound and unalloyed pleasure as a representative of the Vermont State Dental Society, and as an honored guest of the Dental Society of the Province of Quebec, I rise to respond to the toast, 'Armies and Navies of Great Britain and the United States'—the first time, I am credibly informed, that this toast has been proposed in the British Empire. That in itself is a very significant fact, and our Canadian brothers have gone still further, for I observe on the menu card of this banquet a beautiful device, representing the intertwining of the Union Jack and the starry flag of my country in fraternal embrace; the Union Jack on the left in the ascendant, and the star-spangled banner in the same position on the right. Our hearts respond instantly to this generous symbolism of fair Canada, both English and Gallic, and we say, God grant that the armies and navies of Great Britain and the United States may never meet, only as brothers for the furtherance of the interests and civilization of mankind. We have had our family quarrels and have been quite successful in setting up independent housekeeping, but I am never weary of thinking how much our family life has been enriched by Magna Charta, by Cromwell, by the Elizabethan age of English literature. How much instruction and joy we have received from the English founts of poesy and learning! Shall I ever forget the sweet family life as portrayed by Addison and Steele in the *Spectator*, Sir Roger de Coverly and his intimates? How sweet the scent of English meadows, as we read Chaucer, Spenser, Wordsworth; how the depths of the human heart are revealed by Shelley, Keats, Byron, Tennyson and Shakespeare. Emerson and Carlisle shake hands across the sea in sympathetic vision. Herbert Spencer, Huxley, Darwin and others innumerable, have enriched us with their mental treasures. America has absorbed and assimilated all this heritage from the Mother Country, and stands fair and beautiful with her own short but eventful history; but still it is mother and daughter, and as we have been lovers and sharers in the mental and spiritual realm, shall we not much more stand together in the material plane, for the blessing of the world? Amidst the great armies and navies of the world there is another force constantly growing, which men call Altruism. Many manifestations of this force are seen in plans for the betterment of the masses and in national affairs. One of its words is arbitration. England and America gave great impetus to this

thought in the settlement of the Alabama claims. And the late Poet-laureate in imperial verse thought out 'The parliament of man, the federation of the world,' the fulfilled dream of all seers and poets, and the joyous time to which, let us hope, we are hastening. England and America, identical in speech, thought and liberty—may they also be one for the uplifting of the race."

The toast of "Our Guests" was received with loud cheers. The chairman referred to the many profitable and pleasant meetings the Canadians had attended in Vermont and elsewhere in the United States. Vermont had fulfilled to us the scriptural injunction of loving their neighbors as themselves, and for many years, whenever there was a dental convention the "Canucks" had not been forgotten. He felt that the Montreal heart was not half big enough to pay back the obligations they were under, and he suggested that if the politicians would only leave the settlement of some of their squabbles to the dentists, they would be operated upon painlessly and bloodlessly. He asked the Canadians to drink the toast with Highland honors, to which a ready response was made, every man standing with one foot on a chair and the other on the table, and giving the "hip! hip! hurrah!" three times, which means "Death to foes and devoted love to friends," Dr. Cleaves, of Montpelier, responded.

The toast of "Sister Professions, Law and Medicine" was proposed in an able speech by Dr. F. A. Stevenson; responded to by Mr. H. C. St. Pierre for law, and Dr. J. B. McConnell, Vice-Dean of Bishop's, for medicine.

MR. ST. PIERRE'S SPEECH.

MR. PRESIDENT, LADIES AND GENTLEMEN,—When, on hastily glancing over the menu card, I read the words, "The Armies and Navies of Great Britain and the United States," followed by these others, "Our Guests," I felt somewhat alarmed at the thought that if, perchance, through the indiscretion of some reporters, this information were allowed to leak out, some people abroad might be led to believe that the gentlemen by whose presence we are honored to-night, had been captured and taken prisoners at Montreal by some of our volunteers in order that they might be kept as hostages, pending the negotiations on the Venezuela question and the settlement of the proper application of the Monroe Doctrine.

This first impression, I must admit, was bad enough as you see; but when on looking further down I read in plain English, "The Sister Professions, Law and Medicine,"—"Good heaven!" thought I to myself, "what will their friends yonder think of their fate, when they find out that they have fallen into the hands of the law, or what is worse still, the medical profession!"

If at any moment since your arrival amongst us, ladies and gentlemen, you have been misled into suspecting our good intentions, the cheerfulness and conviviality of this gathering must by this time have dispelled every misgiving ; and when you see the merry clerk of the weather himself join in the festival and give you as his contribution a good old genuine Canadian storm with its millions of bright starry flakes of snow and its immaculate mantle of white, no doubt should further be allowed to linger. You will therefore believe us, gentlemen, when we are extending to you a frank and sincere welcome.

In speaking as I have just done, I know that I have been the trumpet of the sentiments of every Canadian present.

Gentlemen, being here in my capacity as a lawyer, I feel that I would be wanting in my duty and forgetful of the venerable traditions of my profession if I did not attempt to pick up a quarrel with someone.

I hold, gentlemen, that the science of dentistry, good and useful as it may be in some respects, is a dangerous science, in this sense, at least, that it is subversive of Christianity. What is Christianity ? It is the new law, that which has superseded and cast into the shade of oblivion the old Mosaic law. Any society, the fundamental principal of which is resting on the old antiquated Mosaic law, is therefore antagonistic to Christianity. Christianity was founded on abnegation and charity, the old Mosaic law on strict, blind, unrelenting justice. "Suffer in silence," says Christianity, "even the tooth-ache." "A tooth for a tooth," said Moses, "and don't suffer any longer than you can help it."

Now, is it not a well-known fact that through the hellish manipulations of modern science, not only is the old decayed tooth made to disappear, and this without pain, but a new one is artificially inserted in its place ? Is not that the revival of the old absolute antiquated Mosaic law ? Is this not "a tooth for a tooth," a new one for an old one ? What answer you, gentlemen ? I shall not say that out of your own mouth you stand confounded, but I do affirm, and that without fear of contradiction, that out of thousands of your patient's mouths the revival of this old doctrine is made manifest.

Now, is it not to be regretted that in this our fair Province of Quebec, wherein our people are so faithfully attached to the orthodox teaching of the Church, we should be threatened with this new schism, and should we not feel somewhat concerned at the sight of the new proselytes receiving from abroad such heavy reinforcements as those which we see amongst us to-night ?

I shall enter into no further disquisition on this point, but will content myself with denouncing you to some of our ultra-clerical periodicals, and great will be my surprise if within a month they

do not succeed in building upon this some political issue which will relegate into insignificance even the mighty, all-absorbing topic, the Manitoba School question.

There is another point I mean to raise and discuss at once whilst I have a fair opportunity of doing so. I have often heard dentists speak of anæsthetics and boast of their operations performed without pain, as if these things were discoveries of the present day.

Gentlemen, I contest the claim ; I deny the assertion that these are the result of modern discoveries. Why, I saw those painless operations performed when I was but a mere urchin in the country village in which I was brought up. Permit me to give you a short description of how the operation was performed.

In my native place (I speak without intending any disparagement to the learned profession of dentistry) the acknowledged dentist of the locality, at least for all the children below ten years of age, was the village blacksmith, a good-humored, cheerful, strong-armed, brawny fellow, whose smith's shop was next to my mother's house. Methinks I still hear the joyful sound of his hammer falling in rhythmical cadences upon the anvil and waking me up in the early morn at the strains of its cheerful music.

When a boy's tooth had become shaky in its socket, upon the blacksmith devolved the task of pulling it out.

The operation, though rather primitive in its character, was effective and quite painless, as you will notice. One end of a strong piece of hempen thread was first tied around the doomed tooth, whilst the other end was securely fastened to the heavy, immovable vice close to the anvil. The boy was then told to stay perfectly quiet for a minute or two, as the tooth by some magic spell would soon fall out of itself. The good blacksmith had this fault in common with other more worthy members of the profession, that he frequently prevaricated, at least whilst acting in his capacity of dentist, and the old French proverb, "*Menteur comme un arracheur de dents*," was quite applicable to him.

Whilst his patient victim would remain standing, waiting for the mysterious action of the expected spell, the blacksmith would put in the fire a piece of iron, which he kept there until it had reached a white burning heat. Then grasping his heavy pinchers, he would pull it out and make a sudden swoop, with a wild scream, towards the innocent boy, who in his fright would dash away, leaving behind him the little tooth dangling from the thread. No pain was felt, no disagreeable impression was experienced other than the little fright, which soon gave way to a feeling of hearty merriment. The boy would soon return for the little tiny pearly tooth, which he would carry with a triumphant look to his mother.

Clever and efficient as this old style was, I am fain to admit,

however, that the so-called modern discoveries, if not superior to the old blacksmith's system, are at least equal to it and should not be despised for their being of more recent use.

Gentlemen, this shall be the end of my quarrel with you, and remembering that I belong to a profession the chief motto of which is "justice," I must admit that yours is indeed a useful profession. Through your knowledge of this important branch of the broader science of surgery, the singer, the speaker, the orator can depend upon having properly restored to him that important part of the mechanism of the voice. Your art helps to secure health and assists in preserving beauty.

Through the delicate operation of dentistry the stately matron loses nothing of the charms of her merry laugh, and the lips of the rosy-cheeked, blushing maiden preserve all that which is lovely and enticing in her bewitching smile.

Ladies and gentlemen, having nothing more to say, I now surrender you to the tender mercies of the medical profession.

Dr. McConnell spoke eloquently on the relations of medicine and dentistry.

Dr. Blanchard rose and proposed the toast to the "Dental Association of Quebec and the Dental College," as follows:

MR. CHAIRMAN, LADIES AND GENTLEMEN,—It is said in ancient Rome, in recognition of the attachment of two friends, Tiberius Cæsar and Sejanus, the Senate decreed that an altar should be built, personified as a goddess, and dedicated to Friendship. Of all the altars which were placed on the sacred floor of the Parthenon, I think this must have been the object of the most beautiful offerings and most fervent prayers. Although it is ages since that altar passed away in ruin, the thought there personified remains with us still. Let us rear another altar this evening and dedicate it to Friendship. Let us raise it high above the altars of Education, Science, Wealth and Fame, and having draped about it the mingled folds of the Union Jack and the Stars and Stripes, place two wreaths thereon, emblematic of the Dental Association of the Province of Quebec, and the other, the Dental Society of the State of Vermont. And while we thus bring our offerings to this ideal altar, and bow in reverent admiration before the beautiful goddess of Friendship, I would propose as a fitting toast, "The Dental Association and Dental College of the Province of Quebec. May they ever fill the hearts of their countrymen and their teeth also."

Dr. Globensky on behalf of the Association replied as follows:

The pleasure of responding to the toast of the "Dental Association and the Dental College of the Province of Quebec" is twofold, because it affords me the occasion of speaking of two institutions dear to my heart, and to whose creation and success it has

been my pride to contribute in the humble measure of my means and power.

The Dental Association of this province, founded in 1869, has had to fight many battles and to contend with great difficulties before reaching the lofty spheres of prosperity and importance from which it now looks down on those who were aiming at its destruction. But now, thanks to the better portion of the members of our profession and of the public, the Dental Association is counted among the best and most useful institutions of this province.

Its existence having been secured by our Legislature, it is now a legally constituted body enjoying all the benefit of special laws which protect the dental profession and the public against the unscrupulous quacks and charlatans by whom one of the most useful branches of human knowledge, the art of dentistry, has for a long time been degraded.

By the efforts and devotion of such eminent members of our profession as you see this evening, it is now an honor to be a registered dentist of this province ; and it is due to the importance of the Dental Association of this province that the Dental Society of the State of Vermont is here this evening drinking before the "beautiful goddess of Friendship" to the health of the Dental Association of the Province of Quebec.

Closely related to this last institution is the Dental College of the Province of Quebec.

Though of recent creation this new institution has already taken a prominent place in this province, so much so that one of the greatest universities of Canada, Bishop's College, of Lennoxville, has accepted a demand of affiliation made by our college. And now the Dental College of the Province of Quebec is affiliated with that powerful university which has done so much for the advancement of science in this country.

The gentleman who has so eloquently and in so poetic language proposed the toast to which I am now responding, spoke of two great men of Rome, Tiberius and Sejanus, whose friendship had caused the Senate to decree the building of an altar. As the strongest ties are not always unbreakable, it happened that Tiberius and Sejanus did not always remain good friends, and history tells us that Sejanus was strangled by the order of Tiberius, whose favorite he had been. May such a fate never be that of the Dental Association and of the Dental College of the Province of Quebec. Let us hope that they will always, as in the past, live in the sweet bonds of friendship. Let us hope, too, that they will never forget the bonds of friendship which unite them to the Dental Society of the State of Vermont.

Dr. F. A. Stevenson, Secretary of the College, replied briefly.

Dr. Chas. Brewster, who may justly be called the father of dental legislation in Canada, proposed in a very neat speech the toast of "The Dental Profession," which was responded to by Dr. G. Lenox Curtis, and Dr. Jas. Lewis, the latter being probably the dentist longest in practice between Montreal and New York, and having a valuable mental storehouse of professional reminiscences. Dr. G. Maillette gave one of his eloquent speeches in French. Dr. Springle gave "The Ladies" with the modesty of a bachelor, and Dr. Andres, "The Press." Dr. Parker, of Bellows Falls, proposed a volunteer toast, which caught the sympathy of the entire meeting. It was a vote of thanks to the management of the Queen's Hotel, and especially to Mr. Frazer-Crierie, for the homelike hospitality and comfort which they had enjoyed. It was carried with loud cheers. After singing "Auld Lang Syne" in English and French, "My Country 'tis of thee" and "God Save the Queen," the meeting adjourned, "happy to meet, sorry to part, hoping to meet again."

We must not overlook the credit due the students of the Dental College of the Province of Quebec, who managed to intersperse between the toasts some very charming choruses.

It was "the wee sma' hours ayont the twal" before anyone got to bed, and Friday morning session found many still in the arms of Morpheus. Some routine business having been disposed of, Miss Grace Bosworth was admitted to membership. Miss Bosworth has been for several years assistant to Dr. Mound, and has been present at many of the meetings, and is the first lady dentist to enter the ranks of the Vermont Society. Dr. C. H. Gerrish read a paper on the "Good of the Order," Dr. Andres, on "A New Therapeutical Remedy," Dr. B. S. Stackhouse, on "How shall we let the Public Know?"

When the train left, there were good-byes exchanged. The guests seemed sorry to go. The "Canucks" were certainly sorry to let them go. Many invitations were extended the Vermonters during their stay. His worship the Mayor was obliged to absent himself from the banquet on account of recent bereavement, and Dr. Anderson, the American Consul, on account of illness. His Excellency the Governor-General, Lord Aberdeen, invited the whole company to a skating party at Ottawa, but the heavy snow-storm, which proved to be one of the worst in twelve years, blocked the roads and made it impossible.

When the train arrived at St. Alban's, the members of the Society were called to order in the car, and the following elections made: President, Dr. F. P. Mathers, Chester; 1st Vice-President, Dr. C. S. Campbell, St. Alban's; 2nd Vice-President, Dr. J. A. Robinson, Morrisville; Secretary, Dr. T. Mound; Corresponding Secretary, Dr. Grace Bosworth, Rutland; Treasurer, Dr. W. H.

Munsall, Wells River. Executive Committee, Drs. K. L. Cleaves, Montpelier; H. Turrell, Rutland; C. W. Steele, G. W. Hoffman, state prosecutor, White River Junction. Next place of meeting, Montpelier, third Wednesday, Thursday and Friday of March, 1897.

Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

24. Q. What is *Leptothrix buccalis*?

(a) *Leptothrix buccalis* was a name given by Robin, in 1847, for those organisms in the human mouth which had been observed up to that time. The term, however, is rapidly becoming obsolete, owing to the fact that these forms are being more thoroughly classified and named accordingly. Miller says: "The name *Leptothrix buccalis* designates particular organism possessing peculiar characteristics, and the name deserves to be retained as little as 'denticola micro-organisms of human mouth.' (Page 70.) Leiber & Rothenstein attribute the cheesy, whitish substance formed on the teeth in the interspaces to the presence of *Leptothrix buccalis*. Any of your readers who wish a fuller account of this term, can find references in Miller's work above quoted (page 70); also in Leiber & Rothenstein's *Dental Caries* (page 23 of Chandler's translation); *American System of Dentistry* (Vol. I., page 751)." W. A. ROBERTSON, Crookston, Minn., U.S.

(b) "'A genus of bacteria' found in the 'oral cavity,' also under the skin."

J. H. STOWELL-JONES, Nova Scotia.

QUESTIONS.

27. Q. Has the moon's phases any influence upon animal tissue? Would the fit of a set of artificial teeth be in any way affected by such influence?

[We have not yet received an answer to the very interesting question No. 25. We are promised one, however, which we expect will be interesting. We will publish it as soon as we receive it — ED. Q. D.]

EDITORIAL NOTE.

Many valuable papers and other matter have been held over until May issue, in order to present a full report of proceedings of Vermont State Dental Association meeting.



DR. G. V. N. RELYEA,
OSWEGO, N.Y.

Dominion Dental Journal

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No. 5

Original Communications

REMINISCENCES OF DR. G. V. N. RELYEA,
OSWEGO, N.Y.

(Formerly of Belleville, Ont.)

I remember you once intimating that you would like to know something of my antecedents. Well, verily. Briefly, I was born in Guilderland near Albany; worked on a farm until twenty. My education was what all farmers' sons get—three months' schooling in the winter, and not infrequently taught by a drunken Irishman. Not content to be a farmer I went to an academy for three months, worked again during the summer and then taught school for three months. Next I took a situation in a grocery, did not like that, and then found an opening for a clerk in a dry goods store; worked six months for my board and another six months at \$250 a year. After one year's experience as clerk I had the presumption to go into business. Bought out an establishment, \$4,000 stock; hired a clerk and for one year pushed it with my usual vim. At the end of the year took stock and found myself minus several hundred dollars, and in three days more was out of business again and looking for pastures green. Got a situation in a publisher's office as secretary, cashier and proof-reader. While holding this situation, a young medical student came to the city (Albany) to attend lectures at the Albany College. He was preparing to become a dentist and urged me to join him. I was open for almost anything that offered. Having leisure as a clerk I commenced to study, and when opportunity occurred, went with my friend to the college; had access to the dissecting department.

There was only one dental college at that time, the Baltimore College, and that was only two years old. I had no money; and the cost of travelling, my board, fees, etc., etc., etc., put it out of my power to go, so I went with J. S. Wood, M.D., Dentist. Attended

lectures at any opportunity, and found myself evenings in the dissecting room with a lot of rude, profane, yes, dissipated medical students. My friend Dr. Root was a Christian, an honest man. He died about thirty years since. After graduating he married; went to New York and commenced practice on Bond Street, where I always found a home when I went to the city. His influence over me at that time of life was most salutary. How many of the students then in that college went to bad; indeed, in looking over my life, how many of my former friends in the profession are alive? Indeed, few of *my* students are living. Few have escaped the snares of the tempter. I can count them by the score with whom I was so intimately connected, besides others who were young, bright, and with whom I had such friendly intercourse, who felt conscious of their strength to overcome temptations, and who used to laugh at my temperance principles; indeed, used to tell me that I did not know how to enjoy myself, that I was a fanatic, yes, a fool. Perhaps I was, but I was rewarded for the stand I took, and elected to the highest gift of the temperance people in Canada, viz., Grand Worthy Chief of the Good Templars of Canada, while my wiser friends, many, many of them are filling dishonored graves. I prefer being a temperance fool rather than a drunken one. But it was the mark of a "gentleman" to get drunk, and the standard of comparison was "drunk as a lord."

Profane swearing was fashionable. Even "ladies" (?) were allowed to sprinkle their conversation with oaths. All these customs are rapidly changing, not by the development of culture, however, but by the triumphant march of the spirit of Christ Jesus. Alas, where am I wandering?

In one year I came out a full-fledged dentist; and with a fair outfit, a book of gold foil and of tin foil, a few teeth and colossal cheek, I started out. My objective point was St. Louis, Mo. First I had to make some money, and meeting a newly-made M.D., with whom I had spent many hours at the college that winter, he prevailed upon me to stop off at Rome, N.Y. There I made some money, and was invited into the country about twelve miles, to a place called Remson, the birthplace of President Cleveland, where I had a glorious time for three months; made about \$100; was rich.

I went from town to village, and finally brought up at Watertown, and next move was to Kingston, and finally to Belleville, where I met my first wife, and became engaged to get married. I then started to look for a location. I went to Kingston, Prescott, Ottawa, Cornwall and finally to Montreal, where I spent a week. It was in February. I found the cold too much for me and went back west. I went to Toronto, Buffalo, Detroit, Chatham, London and back to Belleville.

In the spring of 1844 I went to Ogdensburg, or rather Dr. Ambler, of that city, wrote offering to sell out to me. I went down and bought him out, but he did not want to give up possession until July 1st. In the meantime I went to Albany to visit my parents, and the 1st of July I went to Belleville, and there found a letter from Dr. Ambler wishing to cancel his engagement as he did not want to leave Ogdensburg. I lost about two and a half months and \$200, but there was no remedy, I had to submit. On my return to Belleville I soon found all I could do, and determined to remain there, and in the fall of 1844 married, and remained there over thirty years. When I left I settled up a thirty years' business, and had difficulty with only one man, and he came and paid up and we were friends. I worked up a large practice, and the last year that we worked gold, my business was \$5,300. When I first located there Belleville had 2,500 inhabitants.

Now, about my experience in the line of base for plates. First that I attempted was that Prince of humbugs, cheoplastic, of Dr. Blandy, of Washington. I went to New York and secured the right for Canada, and made about \$500 on that work. Sent circulars throughout the Canadas, but in less than five months it began to come back on me. Not disheartened when the vulcanite came in, only about six months after, I again went to the city and got control for the Dominion. My first vulcanizer cost me \$80. An improvement was soon made and they sold them to me for \$50. I used to sell a vulcanizer and give instruction for \$110. Day, Callender, of Cobourg; Gilbert, of Picton, Clements, etc. I found it called me away from my office and my practice was suffering, hence I gave it up and Dr. Chandler took it in hand. I had through it acquired a provincial reputation. Was called to Hamilton to make a set. I put them up, and while they went to my office to be made I went to Buffalo. I had some acquaintance with Dr. Harvey; he had a partner from Kingston. I think his name was Beard, you may remember him. It was just about a year from the time I began to work rubber. I had made about \$900 out of it, and to my astonishment Dr. Harvey had just commenced. It so happened that I had some fine specimens mounted with gold. When I called on Dr. Harvey he was engaged, and evidently did not care to be bothered with me, so I inquired for his partner whom I knew very well, and he called me up to their laboratory. I showed him a plate in my mouth, and he at once stepped to the head of the stairs and called Harvey. Harvey came up immediately, went down stairs again and discharged his patient, and was back with us. He said to his partner, "Is it not fortunate that he has come just now?" I then learned that Harvey's son had just returned from Philadelphia, and brought home a vulcanizer like a small parlor stove. He had made a plate for his

mother and vulcanized it six hours. I said to the partner that I had some specimens at the hotel; would he go over and see them. Harvey said he also wanted to see them, and asked the partner go over and bring them. They were mounted with gold, and were very fine. Harvey was exceedingly interested, and said to me, "Come down stairs, Mrs. Harvey is interested in dentistry." We found Mrs. H. reclining in her fine rocker, and he, the doctor, placed a chair for me close to her, and putting my specimens in her hands actually fell upon his knees and said to Mrs. H., "Are they not beauties? Now show him your plate." I had to dine with them. Indeed they monopolized me until train time, and the partner saw me safe out of the city. They were the first to work it in that city.

I was called to Cornwall, then to Toronto, and finally to your city. I met Mrs. Benjamin, of your city, at Toronto, and soon had a telegram from her husband wishing to send Mrs. B. up for a set of teeth. She came with her little daughter Maud, and remained at my house three days. Immediately after Mr. B. went to England, and from there to see a cousin somewhere who was a dentist. He was so much interested in her plate that Mr. B. wished me to correspond with him. Wrote to me about it on her return to Montreal, and at the same time asked me down to your city to make her a duplicate plate, as the family had determined to go to Manchester to reside, their son having engaged in business there, and they would go with them. I went to Montreal, attended to Mrs. B., was absent three days, and charged her \$15 a day.

When I left Canada in 1874, I invented a plate retainer, which I perfected during my stay in the west, and when I returned to this city I commenced to make them, and the year I was engaged at it I sold \$2,300 worth; but I could not find an article that was permanent, and was obliged to abandon it.

The late H. M. Bowker and I were competitors at Kingston. The Government was removed, and I went to Belleville. I cannot remember whether Sutton, or Day succeeded Bowker. I had made some reputation during my six months' practice, and the Hon. John Hamilton sent for me to come and attend to his family. This placed me at once in a good position. I put in a set of teeth for the late Mrs. Williamson, also her sister, Miss Macdonald, both sisters of Sir John A. I also attended the family of the Lieut.-Governor of Ontario, the Hon. G. A. Kirkpatrick.

This annoyed Day. He said, "Relyea, I know you have got *the* practice, but I don't want them—the others pay best." I do not know of having lost one dollar during my practice there. I had rooms at the British-American, took my servant-man (who

was also my assistant), and put on style, which pleased the aristocrats.

There was a young man at Picton who had never put in an entire set. He extracted, but they would come to Belleville for their new teeth. He was jealous, and was bound to leave. I, fearing a better man would get the place, went down, put up a vulcanizer for him, and gave him a new start; but the Quakers would go to the best man. Gilbert got wrathful, and said they were like a d— set of sheep—where one went the rest would follow. After six months I heard he was leaving; went down and gobbled him up. Put a man there to extract, make appointments, etc., etc., and I went down every other week for two days, took impressions, etc., and the plates were all made at my office at Belleville. Also, every other week for two days I was at Kingston. Hence I had the three offices on hand. Thus I was master of the situation, from Cobourg on the west, Prince Edward County on the south, and Kingston on the east, and all the north.

This brings me to a little incident at Kingston. Two brothers (the Clements) came to Kingston. They wanted a vulcanizer, but thought my terms too steep. We had a pretty warm time at my rooms at the British-American one evening, and the eldest Clement lost his temper, and turned to me, clenching his fist, and said, "Relyea, you want to be a small Napoleon among us." I speak of this to show how completely I held the situation.

Now for the dark side of the picture. Napoleon had his downfall, so had I. My official position as Grand Worthy Chief involved an enormous correspondence, which, combined with my constant work excavating (that was before the dental engine came to our relief), brought on what the doctors said was pen paralysis, but the excavating had its part in it. I lost the use of my arm for fully a year, and was obliged to go to New York for relief.

It was not the want of practice that caused me to leave Belleville. I left in the fall of 1894, ostensibly to take a vacation; rented my office, or rather took in two young men to run my business for six months, intending to return. While at Chicago, in the spring of 1895, Mrs. Relyea's mother died in this house suddenly, which brought us here, and business relations compelled us to leave and come to this city. We are residing in the old family homestead. An invalid, a niece of Mrs. Relyea, of whom we have had the care for over twenty years, is still with us. I have a nice farm just outside of the city, where I seldom go, however, except in summer, to look over it. It is rented.

This has been written at intervals between calls, hence is not very connected. You can read the whole in less than fifteen minutes, and if there is anything you want more, let me know. I may not be here long—am now living on borrowed time.

GOOD OF THE ORDER.*

By C. H. GERRISH, D.D.S., Exeter, N.H.

The subject is wide and deep, and I shall only touch upon a few factors that impress me as being highly important, and somewhat overlooked in our discussions.

One and all approve of the extended time required of students in their preparatory studies, and the higher standards in examination, which tend to make the results desirable and satisfactory, for a man to practise dentistry to-day cannot be too well informed.

There is one element or characteristic in a man's make-up, or fitness to practise dentistry, that is overlooked, or not given the prominence due, viz., his mechanical skill, or ability to work with tools, and obtain good results, serviceable as well as artistic.

In the days of old, every operator possessed this qualification, in fact he could not practise without it; it was the keystone to the dental arch, without which the temple was incomplete. It was his stock-in-trade, speaking after the manner of men.

As the higher education of dentists advanced, less stress has been put upon this qualification, and the results are apparent to us all.

Diplomas are obtained by the graduates of our dental colleges for high standing in all the studies required in the course, and many graduates are better prepared to teach than to practise.

How many are first-class mechanics in the art of dentistry? No fault of the instructors, none of the graduates themselves. A wide difference always exists between theory and practice. Look over the field and note the number of inefficient operators in practice to-day, whose influence and work is lowering the high standard of our noble art, by advertising bargains, warranting their work (and God knows, it needs it), plugging teeth at fifty cents a cavity, and earning five dollars or better per hour.

What a drag, aye, disgrace, is this! And yet they display their diplomas and are therefore entitled to a living. As a rule they only lack one thing. They do not possess mechanical skill, they never did, and worse still, they never will.

I think the practice of one or more dentists in every town and city will justify my statements. What is the remedy? To my thinking there is only one. Let all the dental schools throughout the land take students on probation. Give them a good opportunity during their first term to test their possibilities as mechanics, and failing in this vital qualification, let them step down and out,

* Read before Vermont State Dental Society, March 19.

to make possibly a grand success in some other calling or profession. As a lawyer, farmer or minister even, they may attain to eminence, but as dentists they are not a success.

Now, as to the practice of dentistry to-day, one is forced to the conclusion that the time has come for special work and training in some one department. Life is too short for any man to cover all the ground. As in medicine the treatment of diseases has been divided, and we now go to a specialist, so in dental practice, it is high time that we follow the same methods. Only in this way may we hope to reach great attainments.

Possessed of mechanical skill and well read in the higher education and some special branch to work at, one quality more is needed, which is greater than any, and that is love, devotion, enthusiasm, unselfishness. This, gentlemen, is the key-note to all high and noble attainments. It is our salvation—in politics, religion, business and professions. As it applies to us, will speak briefly.

As dentists we should view each case presented to us, as to the best possible results to be obtained, considered from the artist's standpoint, and then labor with the single purpose to accomplish the same. Give to your patients the highest results of your skill as a mechanic, professional studies and research, your individual interest, which amounts to enthusiasm, even devotion; impress them with the idea that you are kind, noble, skilful, humane—in fact, the best operator in your town or city; and there is only one way under heaven to create that impression, and that is, simply to be such.

Right here is where many of us fail. We are indifferent, independent. One cannot hope for great results without compelling the attention, confidence, aye, the devotion of his patients, and these are secured only as we give to them the same in our work.

Such a giving out of yourselves to your patients, without any silliness, not only commands a good fee, but secures you for life in their patronage, and it is deserved, too, for you have paid the highest price possible.

The world to-day is looking for just such service, in church, state, trade, and the professions. Money does not always buy it, but it will always command the same.

Again, as to making your work a truly religious one in its best sense, our great Master lays down the law of highest service as love to God and man. The two are not separate, they are one, and in our daily work, in the most arduous of all the professions, we are carrying out, or failing to do, this great law.

We can make our service in the best sense a high and noble one, by making our ideals high. First, a clean body, for that is next to godliness; clean hands, and that is before it; heart, soul

and mind devoted to the highest and best, and what possibilities lie before us! Not only towards our patients, but in our relations with one another, what a mantle of charity we may be able to throw over some mistake of our brother's. What just praise and commendation may we not offer one, looking over some of his handiwork. And if superior in our own attainments, how gladly should we bestow praise where it is due, and thus encourage those who are struggling to a higher standard.

A kind word of praise goes a long way to help a worthy brother. The giving of it does not impoverish us, and maketh our brother rich in the desire to do better.

In this way, my brothers, may we exemplify the higher law of love to God and man, and bring our profession and its members up to the highest standard, where it rightly belongs.

It is the brotherhood of the craft which I would emphasize. Our object and purpose is to do good, and united in our brotherly ties this object is more readily secured. Church, country, state—nothing should stand between us in the accomplishment of this purpose.

With this aim in view our duty is always plain and our lives noble. To this end God grant we may attain.

LOCAL ANÆSTHETICS.*

By A. J. PARKER, D.D.S., Bellows Falls, Vt.

The progressive spirit, which is the spirit of the present day, forces professional men, dependent upon public patronage, to possess all the latest and most improved methods, appliances and remedies for the shortening of operations and the alleviation of human suffering.

The sympathy felt by practitioners of surgery, both general and special, for the victims of disease who have come under their care and treatment is most fittingly illustrated in their untiring and persistent labors in the field of medicine with a determination to avail themselves of something that might help to lessen the otherwise necessary suffering attendant upon surgical operations.

The results have thus far been very gratifying, yet the progressive spirit is still forcing men to study, to analyze and experiment, to add to or take from as seems most fitting until the most complete remedy is found. I shall confine my thoughts and experiences at this time to local anæsthetics, their application and physiological action.

* Read before the Vermont Dental Society in Montreal, P.Q., March 18th, 1896.

A local anæsthetic, as I understand it, is a something that destroys the sense of feeling and renders operations upon the human system painless, and acts only and directly upon the part or parts to which it may be applied.

This is a most wonderful age, and one of the most wonderful things about it is that so many men should have happened to be experimenting at the same time and for so many years along beside each other to finally discover each in his turn (and that not distant from each other) the greatest and only perfect-working local anæsthetic of the day. Yes, these preparations have flooded the market until you can scarcely give away the best of them. Painless dentistry is the talk of the day. The people demand that a local obtundent be used by the dentist when performing surgical operations in the mouth. Cocain is a very useful drug, one that has the properties of a local anæsthetic. Other drugs have been found to possess to a limited degree this anæsthetic property. No doubt cocain is the active principle of nearly all the numerous preparations for local anæsthesia which are in the market. Many overdrawn statements have been set forth regarding the virtues of these nostrums above mentioned. People have been shamefully imposed upon by the use of them, and I wonder that they have faith to have anything used to-day. Cocain is a powerful drug either for good or for bad according as it may be handled. Ill results are not only reported but observed and noted daily by members of our profession, where cocain has been indiscriminately used. One thing is certain, cocain must be properly combined and not alone with other drugs—a grain of brains tempers most wonderfully the otherwise dangerous drug. The knowledge that ill effects have been experienced through the employment of cocain as a local anæsthetic need not debar us from making use of all that is good in it. Scientific research has already proven that cocain is, when properly combined with other drugs, the most effectual local obtundent we possess at the present day. It seems surely a step in advance to use a local anæsthetic for nearly all dental surgery, while in the old order of things general anæsthesia was universally resorted to and the various vapors were forced into the whole system through the blood until all consciousness was destroyed, and to such an extent that the operator could only tell by the closest observation whether his patient would ever awake to behold the sunshine of earth again or not. Under this spell the patient was totally helpless, while with the local anæsthetic they are not only conscious of what is being done but can in many instances render the operator valuable assistance and yet suffer little or no pain. It is claimed by some that a five per cent. solution of carbolic acid and water injected into the tissues on either side of a tooth to be extracted is very effectual, if not equal

to the preparations of cocain as a local anæsthetic. Others think cold water combined with sugar and salt makes a good local anæsthetic. It acts only mechanically through high pressure and low temperature; the tissues are thus deprived of their supply of blood and a temporary paralysis of the nerves results. The action of cocain is purely chemical. Even a two per cent. solution of cocain when employed alone and uncombined with other medical agents would in my mind be unsafe to inject sub-mucously, while in my practice I have frequently used a solution a little stronger than eight per cent. cocain when combined with antipyrin, menthol, oil of cloves, ether, glycerine and water without bad results.

My attention has been drawn with much interest to an article under the heading of "Hints" in the January (1896) number of *Items of Interest*. Perhaps not all of you have chanced to see it; however, please bear with me for one moment only while I draw attention to a new method of local anæsthesia by which the operator performs capital operations. This was most wonderfully demonstrated at the Philadelphia County Medical Society of November 13th, by Theophilus Parvin.

This method was developed by Professor Schleich, of Germany. The method consists of the injection deep into the tissues of a solution made up of one-quarter part morphine, one part cocain, two parts common salt and one thousand parts pure water. Professor Schleich removes tumors and performs amputations by the use of this local anæsthetic alone. Parvin himself allowed his arm to be deeply cut and sewed up as a demonstration of the wonderful things that are possible by the use of only a local anæsthetic, and his illustration is a splendid one. I believe local anæsthetics have come to stay, notwithstanding the variation in their stages of development. I also believe there are greater possibilities than have ever yet been demonstrated to the world through the application of the local anæsthetic, and the field of experiment is open to the competition of the world, the best and most efficient to win. I can but bid every man of progress to take a hand in this great and grand opportunity, it being possible for the humblest of us to attain greatness. Nitrous oxide, ether and chloroform are fast taking the rear seat and giving place to the latest and most improved, the local anæsthetic.

In using local anæsthetics containing cocain, care must be taken not to inject into the deep tissues. Second, not to inject too large a quantity at once. Third, not to drop any into the mouth. In my own experience about the only toxic effects I have ever observed was when I happened to drop a little of the anæsthetic in the mouth. All who have seen a patient under such circumstances, I think, will agree with me that it is much pleasanter, at least, both

for patient and operator in all such cases to guard against rather than have to remedy carelessness. Cocain seems to have a stimulating tendency upon the nervous system, and when large doses are employed it has a depressing action on the respiration and heart. The tendency to excitement and the difficulty with the respiratory organs is said to be the most important complications we have to meet, for the reason that they are likely to occur when we least expect them, the size of the dose not controlling, while the depressing effects on the heart are likely to proceed from weak conditions of that organ, or after the respiratory difficulties, or the use of large doses. Cocain, I think, would be classed as a powerful poison, and our experiments with it should be characterized accordingly. A combination of trinitrin with cocain and distilled water asserts a right of recognition as a successful local anæsthetic. The trinitrin is used to prevent anemia of the brain. About the only time we have trouble in getting the anæsthetic effect with local remedies is where inflammation exists to a greater or less degree.

The following preparation is highly recommended by Dr. Geo. Staples in such cases: "Thoroughly dissolve twenty grains of cocain in one ounce of ether (concentrated), and add one ounce of pure oil of peppermint; shake well before using." This, when applied from six to twelve minutes, gives excellent results. I have seen the theory advanced that the application of a ten per cent. emulsion of cocain applied externally upon the gum under pressure would empty the tissues of the blood and make them more susceptible to the action of cocain, this being thought the safest way to apply a local anæsthetic containing cocain. A great deal can be said for and against the use of local anæsthetics, yet not all the disrepute of the local anæsthetic comes through any inherent fault of itself. More blame should attach to the users of the medicine for the noted lack of care and good judgment than to the anæsthetic alone. Men of common understanding know that they must handle fire carefully or run the risk of being burned. The properties of cocain were not as well known at its first appearance as at the present day, and like the unknown power lurking in the fire many got burned in its indiscriminate use. But this is in the natural order of things in this life; the impatient, restless disposition of man makes it necessary for him to have to burn his fingers in order to teach him to be cautious.

Care should always be taken in obtaining cocain to get the pure article. The practitioner should be on his guard and demand a cocain that is free from secondary alkaloids, also from such inorganic substances as sodium, calcium, etc., that are necessarily employed in the process of manufacture.

There is much more that might be said about local anæsthetics,

but time and space forbid at this convention. Suffice it to say, at least, I hope I may have hinted at a few points of interest to those of my own profession, while I earnestly desire it may help to spur onward the already moving train of thought and action in the hearts and hands of the dentists of America.

ORAL ACIDITY, LOCAL AND SYSTEMIC.*

By W. H. MILLIKEN, M.D., Boston, Mass.

In asking your attention to the treatment of oral acidity, local and systemic, I am fully conscious that the limits of a paper are quite inadequate for more than a general consideration of the subject, but its great importance to dentists and the fact of so little attention being given it by the medical profession is my only excuse for choosing it as a subject, and if, in the limits of this period, so generously allowed me, I may be able to offer any suggestions that will lead to discussion, or any after-investigation, the object of this paper will have been accomplished.

As a consequence of certain nutritional disturbances, abnormal systemic conditions, functional perversion of the gastro-intestinal tract, or from local causes, the oral fluids of a large percentage of persons applying for dental treatment present an acid reaction usually so pronounced that the integrity of the tooth structure and associate parts are threatened, or there already exists evidence of positive injury. The epicure, the dyspeptic and the habitual partaker of sweets, sour wines, or sweet for that matter, and of milk or fruits, at or between meals, exhibit hyperacidity of the oral fluids. In the patient during severe illness, or when tr. chloride of iron or the mineral acids are administered, in the gouty and rheumatic and as is well known during pregnancy, the reaction of the saliva is not unfrequently acid.

In patients of the so-called gouty diathesis, you often, no doubt, have observed the decalcification or chemical erosion—a molecular breaking down of the tooth substance marked by a roughening of the enamel and rendering the tooth painfully sensitive alike to touch and exposure to sudden thermal changes, or the extreme sensitiveness from eating various fruits, grapes in particular, evidencing a systemic acidity.

This condition has an especial tendency to undermine and partially destroy fillings which extend to the gum (showing a hyperacidity of the saliva), and in chronic inflammation of the gum margins, whether resulting in erosion of the teeth or not.

* Read before Vermont State Dental Society, March 19.

Such results of oral and systemic acidity have always been discouragingly difficult to treat.

Of the cause of such acid conditions, I shall not further elaborate upon, leaving it for discussion, if anyone takes exception to the causes named.

I shall now have something to say regarding the several methods of dealing therewith:

A patient comes to your office, complaining of excessively sensitive teeth. You examine the mouth, and find one or more of several things. There may be an erosion of the enamel, or a recession of the gums, or unmistakable evidence of food particles undergoing fermentation, or again you may see teeth with or without cavities, but extremely sensitive. So the question arises, How are we to know positively that the saliva is of acid reaction?

In this work the chemist uses litmus paper to indicate the presence of acids in solution and the dentist must do likewise; and here I must emphasize: the application of a strip of litmus paper will often solve an otherwise very knotty problem. Of course, if we have an erosion we know there is acid present, and that we have to deal with acid sodium phosphate.

To combat and minimize the ravages of this acidity, the use of some *non-corrosive* alkali is naturally suggested, and chalk, calcined magnesia, bicarbonate of soda, lime water, etc., have been employed, but always with indifferent results. Their acid-neutralizing action is only transient and all have other objectionable features—the chalk and calcined magnesia being gritty and insoluble, while the soda bicarb. and lime water, though without grit, are even more transient in action, besides anything but pleasant to the taste.

In looking over the chemical field, among non-corrosive alkalies, our attention is attracted to magnesium hydrate, which is an exceedingly powerful antacid, but almost tasteless. Every progressive and conscientious practitioner is interested in anything possessing superior advantages and offering greater certainty of results than methods hitherto employed.

A careful examination, chemically, shows it to be pure Mg. H_2O_2 odorless, tasteless, barring the slightest astringency, in fluid form, and absolutely free from grit. A microscopic examination under 500 diameters shows a perfectly homogeneous field. It is not subject to precipitation, but maintains a milk-like consistency, and contains neither gum, starch, glycerine or other suspending or emulsifying agent; it is not even a chemical by-product, but simply and solely water and magnesia, representing 24 grains of the hydro-oxide of magnesium in each fluid ounce of distilled water. Inasmuch as there is present no odor, no grit and no unpleasant taste, the patient can not only use it without inconvenience, but,

we are positively assured, it will not nauseate or disgust the most fastidious.

Regarding its strength as an antacid, it is found to neutralize an equal volume of fresh lemon juice, and like all other hydrates, has the greatest possible chemical affinity for acids. A teaspoonful taken into the mouth and allowed to float around over the teeth, will not only thoroughly neutralize any acids present, but, owing to its peculiar clinging semi-gelatinous nature, there is left on the teeth a slight alkaline film which is sufficiently adherent to protect the tooth surface from acid action for a considerable time; in fact, I have tested the reaction of the saliva with litmus four hours, and during sleep six hours, subsequent to the application, invariably finding it still markedly alkaline.

Lime water will retain an alkalinity of the mouth ordinarily about fifteen minutes, bicarbonate of soda less than twice as long, chalk somewhat longer; but a gritty powder is naturally so very objectionable to an already sensitive mouth that it is not to be compared with a tasteless fluid, besides any crystalline form is poorly applied by the ordinary patient, while the fluid magnesia taken in the mouth and held for a minute coats every part and particle of the teeth without any care necessary on the part of the patient. As an antiseptic I will quote from an article by Professor Thornbury, Demonstrator of Bacteriology in the Medical and Dental Departments of the University of Buffalo. His tests extended over a period of ten days. Numerous cultures of the following micro-organisms were made: *Bacillus pyocyaneus* (bacillus of green pus), *bacillus prodigiosus*, lactic acid bacillus, mixed cultures of bacteria from decayed dentine, etc., employing in all some fifty tubes of media. These cultures were exposed to milk of magnesia, undiluted, after the organisms had been growing ten hours, and found that in tube and plate cultures of the pus-forming and other organisms, no new growth occurred under an area covered with milk of magnesia for from twelve to twenty-four hours, as tried, and that even after the milk of magnesia was poured off from the top of the culture, the slight film which remained was sufficient to restrain indefinitely further bacteriological growth. In those zones in the plate cultures to which milk of magnesia was *not* applied, characteristic colonies of the organisms under observation promptly developed. In summing up he says, "I believe, therefore, that this agent must prove most valuable in restricting the ravages of bacteria upon the teeth and serviceable in infections of the gastro-intestinal canal."

Individual cases will govern, but it is probably sufficient to prescribe its use subsequent to cleansing the teeth, three times daily, always upon retiring, or should certainly be employed at night and morning; and so employed one or two weeks prior to

operating on teeth of poor structure (which are usually extremely sensitive) it renders this ordeal less painful. Internally it will always prove of great value as a systemic antacid in conjunction with its local use when oral hyperacidity is due to continued eating of acid fruits or the habitual taking of wines at meals, exaggerating a pre-existing tendency in this direction or tending to prevent the normal slightly alkaline reaction of the saliva. (I will say to you professionally that in that form of dyspepsia characterized by a sour taste in the mouth, red tongue, acid eructations and pyrosis, and aggravated by foods containing too much fat, as well as ordinary cases of gout, rheumatism and gravel arising from an excess of lactic, lithic or uric acid, a dessert to a tablespoonful taken in an equal quantity of water three or four times a day will be attended with the most immediate and satisfactory results.)

In treatments where you are called upon to use acids of different kinds about the mouth, and desire to limit or counteract their action, it is prompt and most agreeable, notably with aromatic sulphuric acid subsequent to the treatment of *pyorrhœa alveolaris* by this agent. Many persons, dentists as well as others, are in the habit of taking a glass of milk, naturally or artificially prepared, and here its local employment is invaluable in preventing lactic fermentation induced by the heat of the mouth, which, if continued, frequently results in excessively sensitive teeth. The importance of the care of the teeth during pregnancy cannot be overlooked or lightly considered. That superacidity so provoking and distressing to the patient and so frequently the prime cause of decay when the teeth are kept constantly bathed with an acid saliva, and frequently flooded with acid regurgitations from the stomach, locally and internally employed in these cases the magnesium hydrate has proven promptly effective and agreeable.

It has been asked, "What is the film which is seen to coat the teeth after an application of magnesium hydrate?" The answer is very simple inasmuch as the magnesium exists in the form of a hydrate and is a fluid; so being in the best possible form both physically and chemically for forming new compounds, it is considered that after the excess of acid present has been neutralized the remaining portion of the magnesium hydrate combines in a somewhat loose chemical way with the mucoid or albuminoid constituents of the saliva (which as a rule already coats the teeth), giving us an indefinite compound which may be called, for convenience, magnesium albuminate. Now, this being loosely combined, as soon as more acid is poured out from the glands enough of the alkali is liberated from the albuminous compound by reason of its greater affinity for the acid (which is usually acid sodium phosphate) to neutralize the acid present, such process going on until all the magnesium present is used, which requires several hours as above mentioned.

Dr. G. Lenox Curtis in rising to discuss the subject said:

The essayist has thrown out some of the most valuable suggestions as to the real causes of abnormal oral secretions. He places gout and rheumatism among the chief factors for this disturbance. He has mentioned, according to my belief, the principal cause of not only hyper-acidity, but the second principal cause of neuralgia, not alone affecting the head, but likewise the entire nervous system. While I regret he has not dwelt more directly upon the eradication of the cause of the trouble, it seems to me that he has presented to this Society a most valuable agent which is within the reach of everyone, and requires no knowledge of medicine to administer. While the mouths of many of the patients referred to by Dr. Milliken may present abnormal oral secretions, we cannot agree with him that it is the rule that those partaking of such foods as he mentions, are universally subject to this acidity. If, as claimed for this "Milk of Magnesia," it forms a coagulum and produces a film-like protector, lasting for several hours at a time over the exposed and inflamed surface of the teeth, it will take the place of all other anti-acids, and none who have occasion to use mouth-baths should be without it. However, why not let us consider the subject from a deeper standpoint, and give to our patients a medicine which permeates the entire system and modifies the secretions before they find their way into the oral cavity? I am indebted to Dr. George How Winkler, of New York City, for suggesting minute doses of creosote—say, the 20th of a grain or less, three times daily—which he claims if taken regularly for one or two weeks prior to dental work, completely diminishes the hyper-sensitiveness of the dentine and renders the teeth almost insensible to the whizzing burr and scraping excavator. He has also found that when given to children, women during pregnancy, and persons in a low physical condition and whose teeth are rapidly decalcifying, it not only prevents sensitiveness but completely checks decalcification and retards decay. In these cases I would like to recommend creosote for it is a valuable alterative and nerve tonic. The value of this drug and the knowledge of when and how to use it is too little known by the medical profession. Rheumatism and gout, which I believe to be a basis of degeneracy of the glands which control the secretions of the body, will be greatly lessened by the use of creosote. I have made many valuable tests, and find that at night when the mouth is at rest and the salivary glands inactive, the secretions are most acid. This, I believe, is not due alone to any systemic affection, but to the lack of sufficient saliva to neutralize and wash away the acid given off by the mucous glands and the decomposed epithelial cells.

A NEW THERAPEUTICAL REMEDY.*

By S. T. ANDRES, L.D.S., Montreal.

In bringing before your notice a new compound of much value, I do so with strong confidence in its merit from long personal experience, which is further indorsed by the testimony given on its behalf by many leading dentists and physicians who have also tried it.

Science has proved most of our ills to be caused by different micro-organisms, and it is well to know of a reliable means of destroying many of them; and when we find a means of doing so, while safe to use in the mouth under all conditions, and possessing valuable healing and anodyne properties, we should investigate and examine the subject carefully, as there is much need for such a preparation in our *materia medica*.

Dr. Henry Ievers, of Quebec City, to whom we are indebted for the discovery of this compound, sought for some preparation capable of destroying with certainty the microbes found in the human mouth, while also absolutely safe to use at all times, and he largely attributes this success to the complete absence of any ingredient which prevents its coming into direct contact with the parts affected, which the usual remedies sometimes fail to reach. That Dr. Ievers has succeeded in his efforts seems to be the universal opinion of leading dentists and prominent physicians who have tried it, and I can strongly assert that I know nothing that relieves pain so quickly, and also protects a tooth from decay while any of the preparation remains in the cavity, even on cotton. These properties render it a valuable agent, that we can safely prescribe to our patients for emergencies when away from a dentist, for an aching tooth, or a tooth giving signs of threatened inflammation, and for parents to use in deciduous teeth that we are anxious to save, but which may be too badly decayed to be filled in the usual manner.

I have used this compound with complete success in many cases of most violent toothache, sometimes placing it directly in contact with the exposed and highly inflamed pulps, securing relief almost instantaneously, and subsequently capping and filling these teeth (with some of the same preparation mixed with a prepared zinc oxide), to my complete satisfaction, and in cases of threatened alveolar abscess, its use has proved by far the *most reliable* means

* Read before Vermont State Dental Society, March 19.

of *aborting* the trouble that we have ; proving far more efficacious than iodine and aconite or the capsicum plasters we have used heretofore in these cases.

I would strongly advise to have the patient directed to place a small plaster made from this material on the *dry* gum when feeling first symptoms of tenderness in *any* tooth, after crowning operations, or a tooth with a devitalized pulp, or one tender after the long operation of filling a large cavity, and have them renew it in two or three hours, if tenderness still continues.

For sensitive dentine, in some cases where the pain proves too severe to admit of further cutting, if you apply it on absorbent cotton packed tightly into the cavity and leave for a day, or longer if necessary, you will find a wonderful difference when you renew cutting of the dentine, or if you prefer you will give great relief by drying thoroughly and placing a little in the cavity and driving it into the dentinal fibrils with the hot-air syringe, and repeating when reaching sensitive dentine.

In ulcers of the mouth, tongue or mucous membrane, if dried thoroughly and then covered with this compound, *while dry*, it adheres without any other dressing, its insolubility resisting the fluids of the mouth and ordinary attrition of the teeth for ten to twelve hours, when a second application has in many cases cured sores that had persistently resisted other treatment.

This compound when mixed with certain proportions of prepared zinc oxide, makes a splendid root filling, being unaffected by moisture, and never softening or disintegrating like gutta percha, and can be made to reach the apex of small tortuous canals by mixing thinner than usual, and forcing it before a pellet of cotton. In these cases its germicidal properties are especially valuable. It also stands attrition fairly well when used as a filling for deeply decayed and sensitive cavities, and it insures perfect protection to the tooth tissue while *any* remains in the cavity, giving complete protection to the pulp (even when exposed), and may tide you over some delicate cases where you deem it inadvisable to be too thorough in the removal of decay, or unwilling to insert a metal filling at a certain time, and you can feel assured the tooth will be protected from irritation and decay, until necessary or desirable to replace with a more permanent filling.

Dr. Ievers does not conceal from the professions the ingredients entering into the compound called "Pheno-banum," but as it is necessary for us, when we use or prescribe an article, to be sure we are furnished with what we want, and what we ask for, it has been protected *against substitution* by copyrighting the name, "Pheno-banum," and I am sure when you have tried this compound, you will agree with those who have already done so, in according it a place among your standard remedies and filling materials, and

look to it as a means of enabling you to save many teeth which otherwise may be lost; and one that will assist you in retaining temporary teeth, when necessary, by directing the parents to relieve the pain, rather than have the child's teeth extracted too early.

"HOW TO LET THE PUBLIC KNOW."*

By B. S. STACKHOUSE, L.D.S., Lachine, Que.

How shall we let the public know that the dentist who advertises that he "extracts teeth without pain," "makes sets of teeth in two hours," cures all with his "all-cures," and who gives the impression in the press that he can do for almost nothing what others cannot do for any price,—how shall we let the public know that such a man is a knave? We find impostors in every place in commercial and professional life; we find humbugs among the retail merchants who cut prices, and among the dry goods people who deal in hardware, groceries, and books, and who make our millionaires flutter over the bargain counter as if it was their last chance and their last cent. To-day our markets are flooded with cutlery and surgical instruments of German make, stamped with the same names as English firms, spelled differently—wretched frauds, yet doing serious injury to legitimate business. In our profession the public is imposed upon by loud advertising crown and bridge workers, local and anæsthetic tooth tinkers, and two-hour-set men.

The public will go on believing and trusting impostors in spite of the exposed quacking of some of them. Anyone acquainted with the history of Montreal for the last twenty years can recall the appearance now and then of the loud advertising "experts," as they like to call themselves, who play their little game until they get "played out," and yet no matter how often the knaves come there will always be credulous people to welcome them. If a burnt child will not dread the fire, we can, at least, in some way control both the fire and the child; but if people will entrust the care of their teeth to men whom ethical dentists know to be not only impostors, but ignorant, we must just let them do it. Surely an intelligent public ought to understand that no intelligent dentist would let quacks get ahead of him either in theory or practice, and that if any good thing comes into our profession, that those who

* Read before Vermont State Dental Society, March 19.

are in the front of our educational interests would more likely be the first rather than the last to test it, and give it the proper place in practice. It may be that the good work the Dental College of the Province of Quebec is doing for the students will in some measure react upon the public. There is no *raison d'être* for the existence in an intelligent community of the brazen-faced quack, who knows his own ignorance so fully that he never appears in our dental societies or dare measure swords with educated confreres, but who knows, too, that the public being ignorant of what is best and most reliable in dentistry as in medical practice, is apt to believe as much in the advertising charlatan as in the most honest and skilful practitioner. I can only answer my own question, How shall we let the public know? by the statement that the public likes to be humbugged, that the public will be humbugged, that if we try very hard to expose humbug we will be put down ourselves as humbugs. I therefore propose to mind my own business and let the public take the consequences.

A WORD FROM THE PACIFIC.*

By J. P. PARKER, D.D.S., San Francisco, Cal.

MR. PRESIDENT AND GENTLEMEN,—My essay will be somewhat rambling, as I wish to tell you about the profession on the Pacific coast. To begin with, we have good, bad and indifferent dentists. The good is in the minority, but enough to hold the standard high, and it is of this class which I shall chiefly speak. Out of the one thousand dentists in California, we can find between two and three hundred that would be classed as good. You can find the "Cheap Johns" without difficulty anywhere. We have four active dental societies doing good work. The State Society is by no means as large as it ought to be, but seems to possess energy to finally conquer; with a membership of a little over one hundred, it holds a four days' session annually and binds together many good workers. There is a society in the southern part of the State, which I hear is doing good work. We have in San Francisco the Stomatological Club, which is a wonderful power in binding together some of the best workers on the coast. It meets every Tuesday afternoon and evening. The afternoon is devoted to clinics and the evening to papers and discussions. It is the best sort of post-graduate course I ever have been acquainted with, and has done wonders for its membership; also, it stands behind

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the *Stomatological Gazette*, the coast magazine. Then we have the San Francisco City Society, meeting once a month, and a good many smaller local societies. We have one of the best equipped dental colleges in the country, in connection with the State University. By this you will see we are well supplied with educational facilities. I think I am not boasting when I say that we have some of the brightest men in the dental profession. Dr. J. W. Younger, of whom you have all heard, at least, is one of the foremost and brightest. He has advanced some theories and practices that the profession generally are a little slow to accept, or even investigate, and you may have observed that considerable jealousy exists, even throughout the East, towards him, yet his kind liberal disposition is not such as would provoke jealousy. We have the same human trait exhibited here on the coast, and I can safely say that if more good dentists were less human and more professional, we would have a paradise. One thing I would mention that we have of which you cannot boast. It is a class of dentists, many of them good operators, who came here in poor health for the sake of the climate, popularly known as one-lungers, who for the sake of remaining will operate for almost nothing, and eke out a miserable existence, rather than go elsewhere and die. We have a good number of hard-working students, each taking up some special point of study and experiment, laboring untiringly for the advance of our great and noble profession. My mind and efforts have of late been engaged in trying to get a better knowledge of amalgam as a filling material. Dr. G. V. Black during the last year has been about the only one who has presented anything new, or that would provoke discussion on the subject, but it is one of the highest importance to us all, and I believe if studied more would be of great benefit to ourselves and patients. Dr. Black's efforts as presented, have not brought forth the recognition I would expect as yet, but perhaps it will come. He has taken up some points which I believe, if carried out, will in time bring a knowledge to us that will greatly improve our work with, and increase our confidence in, amalgam filling. Take, for instance, that quality which Dr. Black terms "The Flow," and it is something wonderful what you can do with it by bringing light pressure. This quality is one of the greatest concern, when we are to use it in compound cavities, where there will be a perpendicular surface exposed with frail margins. "The Flow" will naturally move in that direction, breaking away the margins and in time bulging so that removal is necessitated. Many of us have seen bicuspid and even molar crowns split, either the buccal or lingual surface being entirely bursted away, perhaps leaving large fillings still firmly held by some other retaining points. These, I believe, are usually due to the gradual flow of the amalgam filling,

and not by an expansion when setting. This may not always be the cause of bulging, but by very little experimenting, one can easily convince himself that it cannot be relied upon, not to flow in cavities where there is an opportunity with heavy pressure of mastication constantly brought against it. Dr. Black's tests were made out of the mouth, and it is reasonable to believe that the flow would be increased with a raise of temperature. There are other things which were brought out in Dr. Black's experiments which will open our eyes to the true conditions and tendencies of that important material and factor in dentistry. I have now under way some experiments, which I hope will bring me a better knowledge of what, and how, to get the best returns for our effort. If I succeed in developing anything worth giving to the public, I will remember you in the future.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

DR. A. C. HEWITT, of Chicago, says that in no case should nitrous oxid gas be administered to a pregnant woman.

MENDING BROKEN PLASTER CASTS.—Nothing equals oxyphosphate for mending broken plaster casts or plaster teeth.—*Gordon White.*

SETTING CROWNS WITH CEMENT.—Before setting the crown, wipe the gum around the root with a solution of perchlorid of iron, which will prevent weeping, protecting the cement till crystallized. *E. L. Custer.*

CLEANING GREEN STAIN.—Pyrozone (3 per cent.), moistened with pumice, adding one or two drops of phosphoric acid, used for cement fillings, is good for green stain on teeth. A tumbler of warm water, containing a little carbonate of soda, is good for rinsing the mouth.—*S. B. Palmer.*

SIMPLE METHOD OF CLEANING IMPRESSION TRAYS.—Give the impression trays a coating of sweet oil with a woollen cloth dipped in the oil. Put them in strong soapsuds (made with soap shavings or powder), boil and wipe dry. Now polish with whiting by using a woollen cloth, or fine leather. In this way you can keep your trays bright and clean, and the plaster will not adhere to them.—*E. B. Edgers, D.D.S.*

"ANY PIECE OF FILE WILL DO."—We often see in papers and discussions a remark like the foregoing in regard to the selection of a matrix in filling teeth. The advice is all wrong and unscientific. The matrix should reproduce the original form of the tooth, when possible, and the flat surface of the file, and of some matrices, leaves the approximating surfaces in a condition which is a source of discomfort, and invites new decay by retaining food and other matter until fermentation ensues. Whenever the jack set of matrices are applicable, they are very superior to any other, on account of their perfectly contouring the matrix surface.—*Western Dental Journal*.

WRITING of crown and bridge work in the *Dental Review*, Dr. T. E. Weeks says that while not wishing to be understood as disparaging the necessity of careful preparation of teeth and roots which are to carry crowns, he wishes to emphasize the fact that there are other points of equal importance. His observation has convinced him that only a small part of the irritation and inflammation of the soft tissues about the teeth bearing crowns is caused by bands which don't touch the teeth at every point of their circumference at the gingival margin. Such irritation may come from (1) the edges of the band being rough or improperly bevelled, (2) the band being forced so far beneath the free margin of the gums as to encroach upon the tissues at some point, (3) improper occlusion, or (4) improper contour and contact of the proximate surfaces.

THE USE OF COMPRESSED AIR IN OPERATIVE DENTISTRY.—The February *Cosmos* gives an interesting abstract of a paper given by Dr. S. Freeman before the American Dental Association, on the uses of compressed air in operative dentistry. Dr. Freeman prefers the Champion beer pump for compressing the air, or, in cases where the water pressure is not more than twenty-five pounds, the compound pump by the same manufacturers is better, as it is often desirable to have a pressure of forty to fifty pounds to the square inch. The reservoir is a tank tested to one hundred and fifty pounds' pressure to the square inch. Dr. Freeman uses the compressed air in spraying the mouth to produce an antiseptic condition, using the following: Borine, 1 part; Pyrozone (3 per cent.), 2 parts; water, 1 part. He uses it in stomatitis of various kinds, and in applying medicine to the gums it promotes absorption, thus facilitating the use of counter irritants, sedatives, and local anæsthetics. He also finds it very useful in diseases of the antrum, and in pyorrhœa alveolaris. It is used in desiccating the dentine and forcing medicaments into the tubuli to obtund sensibility, and in bleaching teeth it is also useful as a time-saver.

CLEANSING PASTE FOR THE HANDS.—To half pound pulverized borax, add one pound carbonate of soda and a half pound fine pumice, with sufficient glycerine to form a paste. Use in place of soap to cleanse and whiten the hands.—*A. C. Hewitt, in Southern Dental.*

CHLORO-PERCHA AS AN INSULATOR.—Before setting crowns or bridges on hypersensitive teeth, it will be found that thoroughly coating the entire surface of the tooth, or teeth, with a film of chloro-percha will prevent the pain experienced from thermal changes in these teeth after being crowned, and will also prevent the pain produced by the acid in the cement while setting the crown.—*D. W. Dillehay, in Cosmos.*

DR. A. W. HARLAN says he some years ago abandoned the use of oil of cassia in the treatment of any exposed teeth for the reason that a staining of the tooth is often caused which is difficult to remove. Pyrozone will sometimes remove it, but very often fails. The ozonized oil of turpentine will remove the stain if used repeatedly. In cleansing root canals, Dr. Harlan pointed out, after you have removed the contents as far as you can, the best way to put the canal in condition to receive a dressing, whether oily or coagulant, is to wash out with ammonia water solution, one-half of 1 per cent. This wash is useful before filling the canals also if gutta-percha is to be used. After washing out canal and drying the oil, whether it be cassia, eucalyptus or myrtol, you will find that the gutta-percha clings to the walls better than if wash be not used.

TREATMENT OF ORAL ACIDITY, LOCAL AND SYSTEMIC.—The *Dental Register* gives a summary of an essay by Dr. A. M. Scott, of New York, before the Southern Dental Association. The conditions existing when the reaction of the oral fluids is abnormally acid, as from nutritional disturbances, abnormal systemic conditions, functional perversion, threaten the integrity of tooth structure and associate parts—erosion, hyperæsthesia of tooth structure, chronic inflammation of the gingival margins of the gums, recession of the gums, etc. In all of these cases a noncorrosive alkali is naturally suggested. Chalk, calcined magnesia, bicarbonate of soda, lime water, etc., have all been used with more or less indifferent results. Their action is only transient; they are gritty and insoluble, they are anything but pleasant to taste. To meet both these conditions and overcome the objections to the agents named, magnesium hydrate offers all the advantages possible; and there is but one form suitable to the purpose, and that is Phillip's milk of magnesia, a powerful antacid, chemically pure.

To prevent dark joints in vulcanite work, grind gum sections to fit closely, and, just before removing from articulator, remove every other block, and touch the joints with a little oxyphosphate cement, mixed thin. Replace the blocks and wipe off all surplus cement.
—*Dental Office and Laboratory.*

COMMENTING on a case of death from chloroform given for a dental operation, the London *Lancet* of March 7th says: "It is a matter of no small regret that dental practitioners should not be better informed upon these matters than to permit the employment of chloroform on their premises as an anæsthetic. There is ready at hand a safe and convenient anæsthetic in nitrous oxide gas, which fulfils all the requirements of the dentist, and this anæsthetic should in dental cases be resorted to rather than chloroform."

SUBSTITUTE FOR RUBBER CUP IN CLEANING TEETH.—C. P. Lennox, Toronto, uses, as a substitute for the rubber cup in cleaning teeth, a short piece of the rubber tubing used for regulating. He stretches the tubing over a brush mandrel, a "barrel stone," or any other engine point of that shape, allowing about three-sixteenths of an inch of a free end. Used on engine in same way as a cup it will spread out and follow the shape of the teeth, even going into folds and between teeth, which a cup will not do. The stretching of the rubber also causes a considerable pressure which you do not get in a cup.

CHLOROFORM.—D. J. Spotswood says, in the *International Journal of Surgery*, that chloroform may be given as safely as ether if the following rules are adhered to: 1. The stomach should contain no food and a very small quantity of liquid. 2. Place the head a little lower than the trunk. 3. Have no tight clothing about the patient. 4. The anæsthetic should be chloroform (Squibb's) 70 per cent., alcohol 30 per cent. by volume. 5. A hypodermic of morphine sulph. gr. $\frac{1}{4}$ and atropia sulph. gr. $\frac{1}{150}$ should be given a half hour before administering the anæsthetic. 6. The first inhalation of the vapor should be well diluted with air and very gradually given. 7. A teaspoonful of aromatic spirits of ammonia should be given in a half ounce of whisky or brandy by the stomach. 8. A starched towel, folded in the shape of a cone, the apex open, should be used in administering the chloroform; this allows the air to enter freely. 9. The pulse and reflex of the eye should be closely watched and the towel cone removed from time to time when indicated. The physiological and therapeutic effects of the drug readily suggest the reason for these precautions, hence I shall not enter into a discussion upon the subject. I have never had a death from chloroform in an experience of five years.

THE *Dental Practitioner and Advertiser* summarizes the most important of the final conclusions of Dr. G. V. Black in his studies on the "Physical Characteristics of the Teeth," as contributed to the *Dental Cosmos* :

"Caries of the teeth is not dependent upon any condition of the tissues of the teeth, but on the condition of their environment.

"There is no basis for the supposition that some teeth are too soft or too poorly calcified to bear filling with gold or other metal in use for that purpose, since all are found to be abundantly strong.

"There is no basis for the supposition that the teeth of children under the age of twelve are too soft to receive metallic fillings.

"There is no basis for the selection and adaptation of filling materials to soft teeth, hard teeth, frail teeth, or poorly calcified teeth.

"With our present knowledge, the only basis for the selection and adaptation of filling materials is the operator's judgment as to which he can most perfectly manipulate.

"There is no basis for the supposition that pericemental inflammation, or pyorrhœa, attacks dense teeth any more than those less dense.

"There is no basis for the treatment of pregnant women medically with the view of preventing the softening of their own teeth, or for the production of better calcified teeth in their offspring."

Proceedings of Dental Societies.

THE ILLINOIS STATE DENTAL SOCIETY.

The thirty-second annual meeting of the Illinois State Dental Society will be held in the Senate Chamber, Springfield, Ill., May 12th to 15th, 1896. The executive committee has been especially fortunate in preparing a very interesting programme. No member can afford to be absent. Dentists practising in the State are cordially invited to attend, and if possible to become members of the Society. The profession outside of the State are always welcome to these meetings. The hotels and railroads have granted the usual reduction. Pay full fare in coming and take receipt therefor; this when countersigned by the Secretary entitles the holder to return for one-third the usual fare.

Masonic Temple, Chicago.

LOUIS OTTOFY, *Secretary*.

Dominion Dental Journal

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[No. 4

"LIVE AND LET LIVE."

We sometimes think that the climate of this continent must be solely responsible for the bounce in which so many people indulge. This fashionable hyperbole sometimes creeps into our journals, more on the part of the publishers than the editors. Baron Munchausen could get many smart tips to-day from some of them.

We are led to these remarks by the fact, that our excellent contemporary, the *Cosmos*, announces that it is "the best dental journal on this planet." It keeps on the safe side—there may be a better one on Mars. It states that it will give "all the news of dentistry—not the gossip, but the news—the record of the work and thought which make dentistry progress. *This they can get nowhere else.*" (!) Our excellent contemporary does not state how it proposes to give "all" the news in twelve issues a year. However, we know that it will do its best; and we hope that it will take these remarks in a fraternal spirit. It ought not to be necessary to its existence to publicly announce to the profession, that if they subscribe to it, "there is no need to take any other." We beg to advise our readers to subscribe to the *Cosmos*—and to all others. While we say, *Vivat Cosmos, et cætera*, we would add, "Live and let live."

DR. G. V. N. RELYEA.

Our readers will be pleased to see the portrait of one of the fathers and founders of the Dental profession in Ontario. Dr. Relyea was one of the charter members; and, though on the shady side of life, seems to enjoy a perennial youth.

EDITORIAL NOTE.

We must not forget to thank Dr. E. O. Blanchard for the privilege of using the photographs of the X rays revelation of a portion of the maxillary bones, used in our last issue.

Personal.

E. HERBERT ADAMS, M.D., D.D.S., is to be congratulated on being appointed by the Public School Board of Toronto, as their representative on the Collegiate Institute Board of the city.

DR. G. LENOX CURTIS, the distinguished oral surgeon of New York, was married on the 12th of February to Miss Richmond, of Coatesville, Pa. Happy boy, happy girl, may they always be!

IN his palmy days John Bright was fond of expatiating on the wonderful growth of the United States in material resources, and of demonstrating that its wealth was multiplying by leaps and bounds. We are reminded of the orator's favorite theme by the announcement that Parke, Davis & Co. have opened two new branch houses to satisfy the rapidly growing demand for their preparations—one in New Orleans and another in Baltimore—and by the receipt of their '96 price list, comprising over six thousand items and twenty-nine distinct lines of preparation! It is amazing how this house has grown within the past fifteen years. It has been erecting laboratories by the acre, multiplying its branches and agencies, and increasing its output of pharmaceutical preparations by the ton! The ground for this amazing prosperity is not hard to find—scrupulous integrity, dignified, honorable business methods, and, above all, a strenuous desire to treat professional men in accordance with professional methods. All the world knows that the label of this firm is a warrant of purity, activity and precision in the contents of the container, and the physician realizes that in his grim battle with disease he can depend upon Parke, Davis & Co.'s preparations every time!

Dominion Dental Journal

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No. 6

Original Communications

ANOMALIES IN DENTISTRY.*

By G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

When you have heard this paper you may decide that, like Pompey's pillar, it is something of a misnomer. I use the word "anomaly" in its ordinary dictionary sense, signifying a deviation from type or being contrary to analogy. For example, we see certain lines of conduct expected of professional men, and as dentistry is by common consent designated a profession by analogy, we look for the ear marks of professional ethics among its members, and failing this we find an anomaly.

That there are anomalies in dentistry is perhaps not very patent at first glance, but I think that on a more careful scanning of the field we occupy there is much of the irregular that will attract our attention. Perhaps none more loudly make the claim of being professional than those who are daily bringing into the profession that which in the eyes of the educated laity detracts from the force of the contention.

Certain things are expected of a professional man that are not looked for among tradesmen. A medical man, for example, is expected to give his patient such advice as will prevent sickness or the necessity of further treatment, seeking the highest good of his patient, without regarding for one moment his own interests. The physician who would be guilty of treating (or maltreating) his patient so as to prolong the illness and thus increase his bill

* Read before the Toronto Dental Society.

would be counted worthy of ostracism by his confreres and of boycotting by the public.

The lawyer who is proven guilty of a like treason to his clients is, in legal phraseology, "stripped of his gown."

The dentist, professional man though he may claim to be, will too often, I fear, be such a sordid soul as to forget the best interests of his *clientele* and give the advice that will (for the time being at least) increase his bank account. I have for some time been of the opinion that before we can claim to be a profession, without blushing for the shortcomings of many that are continually before the public eye, there should be provided by our statutes machinery by which a licentiate of dentistry could, on proof of having been guilty of glaringly unprofessional or grossly immoral conduct, be deprived of his license. This power, in the hands of our judicious Board, would be a weapon the usefulness of which would soon become apparent.

As things stand at present, a man, once possessed of a license to practice, may defy the powers that be, and degrade the profession to the dust. This provision would be a protection not only to the profession but also to the public, for men such as need this drastic treatment live largely by fleecing and gulling the public. You may say, as is sometimes said, that the public love to be humbugged, yet it is true that they should have protection.

The reactionary effect of this mercenary treatment of the public is seen, I am sure, by every one of us in the distrust of our motives evinced by some of our patients. Perhaps we mildly suggest to some one that presents, that certain teeth should be filled instead of being sacrificed by extraction, when we are met with an incredulous sneer. They know all about that, so-and-so filled their teeth or their neighbor's teeth and it only stayed in a week, and some of it fell out on the way home. How often you are met with the painful reality that your patient does not believe what you are advising is for their good but solely and purely for your own.

Another thing that has struck me as anomalous in dentistry is that so many men lack the spirit of professional courtesy that prompts us to be helpful to each other and render each other any assistance in our power. In the days when the dentist's education was obtained in a few months' apprenticeship in the office of a practitioner, it was not to be wondered at that his laboratory was kept under lock and key, lest another should learn his secrets and outstep him in the race for wealth.

These were transition days, but even then we had noble examples of men who generously gave the results of their skill and researches to their brother dentists. Parenthetically, let it be noted here that these are the men whose names are handed down in the archives of our profession.

Says Dr. Chas. J. Essig in *Cosmos*, "It cannot be denied, however, that *esprit de corps*, which is the 'chivalry' of professional life, is often forgotten, and the code of ethics which should be our guidance in all intercourse, both with patient and professional brother, is as often ignored as observed. Yet we should be far from attributing every violation of the strict interpretation of the code of ethics to a want of honor or to greed; much of it is, no doubt, due to absence of the scientific spirit which should guide the practitioner in the treatment of the dental organs.

"The dental profession cannot hope to gain or to hold the highest respect of the people while its individuals exhibit the ethics of the artisan."

Then there are the men who claim to be professional and yet never attend anything in the way of a convention of dentists, and who belong to no dental society.

Nearly akin to these men are the men who are so busy that they find no time to read the journals, or so penurious as not to subscribe for any. How can these men expect to keep up with the rapid pace set by the leaders in dentistry, and not mingle with their fellows? There may come a time when "there is nothing new under the sun" in dentistry, but the time is not yet.

Someone has said he pitied the dentist who never read the journals, but another put it better when he said he pitied the patients of the man who never reads the journals.

Imagine, if you can, a lawyer who did not read the law reports. The Law Society of Ontario perhaps built more wisely than we when they provided that an annual fee of seventeen dollars be charged each lawyer and the reports be sent to him, and if our Boards could by the same means put into the hands of each dentist a good dental journal it would be missionary work, indeed.

It is to be hoped the raising of the standards of matriculation will bring about a much needed change in these directions, for, other things being equal, surely the man with a liberal preliminary education will be more apt to be a man of breadth of mind and strength of character.

Have you ever wondered where we are drifting?

What will be the dentistry of the next century so near at hand? Will there come a time when our daily papers will not be used to proclaim to the public the "dental parlors," the "teeth with or without a plate," "best teeth five to eight dollars," "vitalized air free with sets until Christmas," or will the time come when we shall all succumb to the pressure and "go and do likewise"?

Has it ever struck you as strange that dentists do more for nothing than any other class of men? You do a little work in the way of filling for a patient and he forthwith suggests that you clean his teeth up a little, never for a moment considering it a

service worth paying for. These demands probably arise in part from the exalted ideas the public seem to have of the vast amounts of money a dentist makes, but I think a great part of it is due to the low estimate we have been placing on our own services. A dentist will attack a severe abscess, and after days, and in some cases weeks, of treating, fill canals and tooth, and charge not for the treating of the abscess, but only the regular fee for filling that particular devitalized tooth.

How frequently do we write a prescription for which we never think of charging. Are we not in danger of being taken at our own valuation by the public, and are we doing right in educating them in this direction? It is the belief of the essayist that the beloved public value professional services, whether in the form of prescription or operation, at just what it costs them, and until we rise in our own estimate of our work we will not rise in the estimation of our *clientele*. It is scarcely necessary for me to more than mention that other anomaly, the using of secret nostrums in the form of local anæsthetics by men who lay claim to being governed by professional ideas. I would not mention it were I not impressed with the need of emphasizing the warning. Right here in our own city nostrums containing cocain are on sale, and find purchasers. Let us hope that the deathblow of this pernicious and dangerous practice has been struck by the S. S. White Co. by the publishing of the formula of their anæsthetic, and the strongly worded editorial in *Cosmos* of February last. I fully and heartily agree with the editor in his opinion that "the time is fully ripe by reason of the known dangers, incident to such practices, for securing a proper legislative control which shall relieve the community of this menace to life and health, and the profession from a blot upon its record.

"There is no excuse," he says, "for the use of cocain nostrums. Where the drug is used it should be with a full knowledge concerning it, and any properly educated practitioner either has such knowledge or has ready access to it.

"The continued use of cocain nostrums in the light of our present knowledge is simply paying high tribute to the greed of the nostrum-vendor, and dallying with a source of danger which, when its logical result in the form of an accident ensues, should deprive the author of it of all sympathy from his colleagues or mercy from a jury."

The thoughtful reviewer of the present status of dentistry is forcibly impressed with the thought that prosthetic dentistry does not, in these later years, occupy the position its importance would merit. There is a tendency to undervalue this branch of our work. How common it is to hear from the practitioner in the city, "Oh, I don't do much plate work, I seldom am called upon

to do so." Granted that it would be more desirable to have a state of things prevail where it would be unnecessary, the fact remains that prosthetic dentistry, to a perhaps increasingly large proportion of our people, is a necessity. I remember, in the graduating class of which I was a member, in our school of dentistry a young man of such aristocratic tendencies, that he declared that he was going to do a practice exclusively operative when he began. I have not followed the career of this young man closely through the years that have passed since, but I venture the opinion that he has since found it profitable to do a little prosthetic dentistry while he waited for the "select practice." I think that you will agree with me that there is a decadence in the prosthetic art, which is to be deplored. Perhaps it is due to the advent of vulcanite, which has to such an extent usurped the place of all other materials as a base. It would seem as though the skill necessary in the days of the gold plate, and the accompanying limited laboratory facilities, has departed, and the hand of the average dentist has lost its cunning.

Though vulcanite may be a blessing in the sense of being "the greatest good to the greatest number," yet it seems to be, in a certain degree, responsible for this state of affairs. Not that less skill, judgment or taste, may not be called into play in the making of the most ordinary denture, for the horrid examples of inartistic arrangement, selection and articulation of artificial teeth may be seen daily in our street cars and on our thoroughfares.

One factor that may help in bringing about this seeming lack of interest in prosthetics is that competition and quackery have been felt to a greater extent here than elsewhere. While it is rare, indeed, to see fees for filling advertised, on the other hand five dollar teeth are to be found advertised in almost every paper in the land. The people again are often less refined and companionable who require this class of service, and try the dentist's patience by "Jewing him down," if possible; but surely our best should be done for all for whom we agree to work. Certainly, to a greater or less extent in all our practices, the replacement of lost dental organs is a necessity, and personal as well as professional pride should demand for this work our best endeavor.

During the period of our student life spent with a preceptor, necessarily the first work given to a green student is in the laboratory, and he naturally, after a time, looks on his duties in the laboratory as "freshman work." Later in life he will discover that there are difficulties to be met in making a simple vulcanite plate which will tax the patience and experience of the veteran. Who of us will not confess that there are cases where the getting a correct articulation or fitting a plate to a flat upper, or a ridgeless lower will call into play every whit of patience and skill we possess?

There is room, I claim, also in the laboratory for the display of taste in the artistic arrangement of teeth in an artificial denture. There is a charm for one with a turn of mind for that sort of thing in taking a set of plain teeth and making a combination that will defy detection by the unpracticed eye. The inspiration that comes to the artistic soul never reaches the five dollar man. These men must turn out a certain number of plates every week, and their highest ideal is, forsooth, the stereotyped picket-fence, whited-sepulchre arrangement, if only the plate will "stick up." To assist this sticking up, and save accuracy, some make deep air chambers and increase the depth by a heavy bead around the edge so that we often find the soft tissues so drawn that a serious congestion and deformity are the result. This soreness is attributed by some to the coloring matter in the plate, and a black one is substituted and the vacuum deepened. In one of these cases lately I ordered the plate left out for a fortnight and advised massage of the palate to reduce an air chamber pattern of fully a sixteenth of an inch deep. After making a denture with no chamber no difficulty was experienced in retaining it, and no further inflammation was noticeable. Is it not strange that metal dentures of different kinds are retained without air chambers, while in vulcanite they are by some considered indispensable?

It seems to me that with very few exceptions all that is necessary to retain a denture after a careful impression and articulation is a bead extending around the margin of plate, following the back part of palate and edge of gum line. A vacuum chamber is, unless the wearer is very careful as to the cleanliness, a breeding spot for all the bacteria that Professor Miller ever dreamed of. If used at all the chamber should be extremely shallow, about half the usual depth.

When a patient puts himself in our hands for treatment, we should feel ourselves bound to do the very best possible for him. The dentist who will insert a filling and dismiss the patient, leaving the mouth and remaining teeth in such an unhealthy condition as to render the "life expectancy" of the filled tooth much lower than is necessary, without warning and advice, has failed in his "whole duty" and shown that he has not reached the highest conception of his responsibilities.

In this rambling paper I have not so much aimed at originality as to "stir you up by putting you in remembrance," and sincerely hope the paper may be accepted with this in mind.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

DR. H. C. REGISTER says that in bleaching teeth he uses, after thorough desiccation of the tooth, tincture of iodine, followed by an application of ammonia water.—*Cosmos*.

SENSITIVE DENTINE OBTUNDER.—At a recent meeting of the Stomatological Club of San Francisco, Dr. M. W. Leokowicz made an exhibit of a saturated solution of potassium carbonate in glycerine for correcting sensitivity of the dentine.

ONE of the most useful things for cleansing the hands when they are soiled by laboratory work is Gold Dust washing powder. It will at once remove stains left by vulcanizer flasks, and is widely useful for general laboratory detergent purposes.—*Dental Practitioner and Advertiser*.

THERMOMETERS.—“Before purchasing a thermometer, invert the instrument; the mercury should fall to the end in a solid ‘stick.’ If it separates into several small columns the tube contains air and will not register accurately. Nine persons out of ten think the mercurial column is round, but this is not the case; it is flat, and the opening in the tube is as small as the finest thread.”—*Dental Practitioner and Advertiser*.

THE “busy man” who is your patient, in his rush for dollars, will insist upon visiting his dentist at a time when he cannot do anything else. He wants an hour very early in the morning or late in the afternoon. “Can’t come any other time,” he says. Do not let this man have his way. Have your office hours and keep them, but do not let any man run your business, or get in your office out of office hours, except in an emergency.—*Western Dental Journal*.

CATAPHORESIS FOR OBTUNDING SENSITIVE DENTINE.—Dr. Henry W. Gillett, of Newport, R.I., describes in the February *Cosmos* his method of obtunding sensitive dentine by cataphoresis. A twenty or thirty per cent. solution of cocain is placed in the cavity on cotton, to which the platinum-pointed positive electrode is applied, the negative wet sponge electrode being applied to the surface of the body, such as the neck or face. It has enabled him to say to his patients that he can prevent all pain in preparing sensitive cavities.

TO KEEP THE HANDS CLEAN.—In the warm days that are now before us, when a rubber glove cannot be worn with comfort while engaged in prosthetic work, an ointment with honey for the hands will subserve the same purpose. It holds the dirt in suspension and dissolves very quickly when immersed in the water, leaving the hands soft and clean. Take clarified honey and rosewater, of each one pint, listerine two ounces, mix and bottle. For winter use add two or three ounces of glycerine.—*Dental Digest*.

AT the Philadelphia County Medical Society, Prof. Theophilus Parvin demonstrated the new advancement made in the methods of producing deep and extensive local anæsthesia developed by Prof. Schleich, of Germany. The method consists in the injection deep into the tissues of a solution consisting of one quarter part morphine, one part cocain, two parts common salt, and one thousand parts pure water. Prof. Schleich performs capital operations, amputations, removals of tumors, etc., under this local anæsthesia. Prof. Parvin allowed his arm to be deeply cut and sewed up as a demonstration before the Society.—*Southern Dental*.

LOCAL CAUSES OF PYORRHEA.—Dr. Talbot enumerates as local causes of Riggs' disease, infection from micro-organism, application of the rubber-dam, clamps, wedging the teeth, correcting irregularities, sharp edges of decayed or filled teeth, protruding fillings, spaces between teeth, crown and bridgework, over stimulation in the use of the toothpick, artificial teeth, more particularly ill-fitting plates, injuries, tartar, accumulation and decomposition of food, and collections around the necks of teeth, tobacco and everything of a foreign nature, as observed in the mouths of imbeciles, idiots, epileptics, and all individuals who do not take care of the teeth.—*International*.

DR. W. A. MILLS, of Baltimore, in the February *Cosmos* advocates the insertion of span or arch fillings in approximal cavities, to relieve hypersensitiveness and congestion of gum tissue in gingival spaces between bicuspid and molars caused by packing of food during mastication. He prepares the cavities as for separate filling, inserts an orangewood wedge, and binds the teeth firmly together with wire to prevent any spreading during the filling process. He then fills the space with a stiff cement, forcing sufficient over and against the buccal and palatal surfaces of the teeth to form a matrix, removing all cement from the cavities in the teeth, and sufficient from the space to give proper shape to the filling. The filling is then inserted as if in a single cavity. In case of using amalgam instead of gold, he uses gutta-percha instead of cement, leaving binding wire and matrix in position twenty-four hours, after which the filling is polished.

DR. J. N. FARRAR, in the *Dental Digest*, defends the use of ferules upon anchorage teeth in correcting irregularities of the teeth, as being more cleanly and less injurious than plates covering the roof of the mouth. At the same time he is careful not to use a single tooth for anchorage unless the tooth is well supported by contiguous teeth. His plan is to use ferules upon two or three teeth, uniting them by wires soldered to the sides of the ferules. Three teeth may thus be embraced by two ferules, the middle one having no ferule upon it. Dr. Farrar emphasizes the necessity of guarding against the return of teeth to their old position after regulating, which is often the cause of failure and humiliation.

TO replace a block of teeth where the pins are broken or have pulled out, take a piece of 22k. gold wire, twelve to fifteen gauge, cut two bits of sufficient length to reach across the thickness of the approximal surfaces of the block, and project into the rubber. Rivet-head both ends; with fine wheel, cut circular notches on either side of the block large enough to allow the pin to pass through between it and adjoining block into space for rubber. Cut these notches near or into border of tooth; and when the work is completed, and the clinching rivet-head finished, it will resemble a neat filling of gold, also the block will be more secure than with the original pins. Sample pinless blocks may be thus used.—*F. E. Battershell, D.D.S., N. Philadelphia, Ohio Dental Journal.*

ELECTRICITY FOR TOOTHACHE.—Whether from inflammation of the pulp or of the peridental membrane, toothache may be arrested at any period before transudation of the leucocytes has reached the point of abscess, by the application of a mild electric current for from ten to twenty minutes. For this purpose the positive current should be divided, one wire fastened to the forceps, and the other with the negative, put into the hand of the patient. Now begin with the mildest current and increase until the sensation begins to be unpleasant, then diminish a little and apply forceps to the tooth. Protect lips by slipping a rubber nipple over beak of forceps, increase current again as much as can be comfortably tolerated, and hold until pain altogether subsides, which is about ten minutes. Remove for a brief space and apply a second time for five minutes; this to counteract the reflux in the capillaries. Watched and waited minutes are long, but on this account do not narrow the prescribed time. After placing forceps with right hand, change to left, and resting forearm on arm-rest, stand at rear of patient, otherwise the operator may experience some inconvenience. These directions carefully followed will quiet toothache and complaint.—*Ohio Dental Journal.*

THE DOSE FOR CHILDREN.—Dr. Griffith gives the following as the best scheme known for ascertaining the dose for children. It obviates all guessing at weight, etc., so objectionable to the other rules :

Adult	1			
Eighteen years	$\frac{3}{4}$			
Twelve "	$\frac{1}{2}$			
Eight to ten years	2-5			
Six years	$\frac{1}{3}$			
Four "	$\frac{1}{4}$			
Three "	1-5			
Two "	1-7			
One "	1-10			
Nine months (9-12)	1-15— $\frac{2}{3}$	the dose for one year		
Six months (6-12)	1-20— $\frac{1}{2}$	" " "		
Three months (3-12)...	1-30— $\frac{1}{3}$	" " "		

—*Montreal Pharm. Journal.*

A NEW STYPTIC.—Prof. Roswell Park, of the University of Buffalo, says that he has found very useful as a spray for checking the oozing of blood during operations, a five per cent. solution of antipyrin, made up with sterilized water. This has been tried by many surgeons and found to have no deleterious effect, no matter where it is used. Prof. Park has since found that a combination of antipyrin and tannic acid is still more useful. This mixture precipitates a thick, gummy cohesive substance, which offers the most ideal styptic for certain purposes. An alcoholic solution of tannic acid is used, and antipyrin added in quantity sufficient to form a precipitate of required consistency. This substance is particularly useful in hemorrhage from bone, for instance, in operations upon the cranium. A small piece of sponge or cotton sopped in it may be forced into a bleeding tooth socket, and in many other ways it may be useful. There is but one attendant difficulty, due to its remarkable cohesiveness, that when the time comes for detachment or separation, it is difficult to remove it. Sometimes it has been necessary to wait for the formation of granulations and separation by natural process.—*The Dental Practitioner and Advertiser.*

DR. BLACK'S EXPERIMENTS. (Abstract of paper in April *Cosmos*.)—In an article bearing on the "practical utility of accurate studies of the physical properties of the teeth and of filling materials," Dr. Black points out wherein his experiments are practical in the sense that they should be of benefit to the profession, and through them to humanity. He points out that facts may be discovered before their time, that is before correlated facts are known that will admit of their utilization. He briefly summarizes

the results of his elaborate experiments on tooth tissues to be these, "The percentage of lime salts in the human teeth is very uniform. The slight variation found bears no relation whatever to caries of the teeth ; it has no relation whatever to diseases of the peridental membrane. The percentage of lime salts in the teeth of child-bearing women is not reduced during the period of child-bearing. The percentage of lime salts bears no very constant relation to the strength of the teeth as tested by pressure upon blocks of dentine." While the investigation does not clear up the mystery of the different degrees of susceptibility of teeth in different mouths to the ravages of caries, it should remove from the minds of the profession a grave misconception, viz., that the differences of susceptibility to caries in different patients is directly proportionate to differences of lime salts. It has also, he points out, been the habit of the profession to designate rapidly decaying teeth as soft teeth or poorly calcified teeth, teeth that will eventually be lost, and patients are plainly told that their teeth are poor in quality. By his investigations Dr. Black is convinced that this is an error. Teeth that are rapidly decaying are as apt to be well calcified, strong dense teeth as the teeth in which no decay appears, proving that it is not the difference in the calcification of the teeth that constitutes the basis of difference in their susceptibility, but it is to be found in some outside influence acting primarily on the surface of the tooth. Differences of susceptibility to caries are known to be variable, as for example, in young people with rapidly decaying teeth a marked improvement is often seen as the patient grows older, provided proper efforts are made to limit the damage done. No greater evil exists in the dental profession than the idea that certain teeth are too soft for the use of the best filling materials, causing the dentist to relax his efforts to introduce the most permanent fillings, and causing the patient to despair of saving the teeth. The experiments prove that no teeth are "too soft for gold filling." The hardest gold filling is readily crushed out of all semblance of its original form upon a block of dentine from the weakest human tooth without injury to the dentine. While emphasizing this point Dr. Black utters a note of warning regarding the danger of injuring the peridental membrane by the too severe malleting sometimes indulged in in the endeavor to make a dense gold filling. While it is estimated that in a state of nature the peridental membrane of the human tooth should stand a biting strain of between two and three hundred pounds, yet it is often found that from lack of use, from sensitive exposed dentine or some other cause, the membrane will often stand only one hundred pounds pressure or less. If a tooth thus tender were filled temporarily with some plastic to relieve tenderness, and the patient sent away with the instruction to use

the tooth, in a few months the tooth will bear the mallet with little or no pain or injury to the membrane. The anchorage of bridges with large molars upon roots of bicusps which are not meant by nature to bear such a strain often results in absorption of the root and destruction of the usefulness of the bridge. Dr. Black's experiments in the density of gold fillings, made in steel dies and in teeth in the mouth, lead him to conclude that few operators make their fillings sufficiently hard to withstand the strain of mastication. Dr. Black thinks that as serum therapy and its mysteries become better understood the reasons why persons differ so much in their susceptibility to caries will be unfolded. No scientist should regard any discovered fact as valueless, but should recognize that when other facts are demonstrated the reason why of that which is at present unknown will be made plain.

Proceedings of Dental Societies.

ILLINOIS STATE DENTAL SOCIETY.

The thirty-second annual meeting of the Illinois State Dental Society was held at Springfield, May 12 to 16, 1896. A good programme was carried out, and a large attendance was present. The following officers were elected: President, C. R. Taylor, Streator; vice-president, E. B. David, Aledo; secretary, Louis Ottofy, Chicago; treasurer, W. D. Swain, Chicago; librarian, J. R. Rayburn, Fairbury. The next annual meeting will be held at Peoria, beginning on the second Tuesday in May, 1897.

LOUIS OTTOFY, Secretary, Masonic Temple, Chicago.

PROGRAMME OF TORONTO DENTAL SOCIETY.

June 9th, at Harold Clark's, 45 King Street West; paper by A. J. McDonagh. September 15th, at H. T. Woods', 3 College Street; paper by Luke Teskey, M.D., L.D.S. October 13th, at A. J. McDonagh's, 274 Spadina Avenue; paper by Harold Clark.

G. S. MARTIN, *Pres.*

H. E. EATON, *Sec.*

EASTERN ONTARIO DENTAL ASSOCIATION.

The seventeenth annual meeting of the Eastern Ontario Dental Association was held this year at Ottawa, on June 9th, 10th and 11th.

Correspondence.

TOO MANY DENTISTS ?

YES.

SIR,—Yes. There are too many unethical and unbalanced dentists. A dentist who resorts to unprofessional methods shows that he is either a first-class fool, or a first-rate rascal. Now I think the majority are not rascals, but simply people of unbalanced minds, with a screw loose. If a man goes into dentistry only for what money he may get out of it, he will do any dirty and unprofessional act to make money. If we are more particular as to the class of boys we receive as students, it will go a long way towards remedying the evil.

NO.

SIR,—I do not think there are half enough dentists in any part of Canada. Everybody, you may say, has decayed teeth, and everybody should have attention. There are not too many dentists, but there is too much ignorance among school children and their parents about the teeth. If the dentists would do more impersonally in the press to educate the public, not by advertisements, and if the school teachers would do a little, we wouldn't have half enough dentists. That's what's the matter.

SIR,—I do think ther's to many dentists like yourself, who think that a man can't pick up a job wherever he likes, without being caled a quack, that's what you call us, because we put cuts of teeth in papers, how can peple kno to find dentist if they don't see cut, what difrence is it if a shomaker uses cut of a boot. Ther's to many dentists who think we can't lern the work without books. A shomaker doesn't know anything about the anatmy of feet, but he maks a good boot. What do we want with coleges, and jornals if we can make a sett of teeth. You colege chaps should shut up, and leve the work to us.

You ax for know if dere be too much dentiste. Vell, for me-self, I tink dat's so, yoost too much for pay me. I do me bess for make de people tink dat I geeve twenty dollair of work for ten dollair an dat I make de teeth in two hour, but de not oonderstand dat's lie, for I make meself vary fine in de beeseness of making de grand lie. Dat seem shame for me confess, but can't help, and eef I make one dollair by tell de troot, and two

dollair by tell de lie, dat one dollair in my pocket. I tink too bad make many dentiste, because dat bad for me. I put de grand peecture in the papers, and say I do grand tings for leetle monie, but I find we no get all I want, and eef you make too much dentiste, we will all have to go be priest. JEAN.

No, there's not too many dentists, but there are decidedly too many students, the Lord help them. X.

HOW TO DEAL WITH THE "CHEAP" ADVERTISERS.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—There are several ways of meeting the selfish and unprofessional actions of dentists who degrade themselves and their practice by advertising "cheap teeth," and with your permission, I propose to offer these suggestions, and to say that they are not experimental, because they have succeeded beyond my anticipations in this section of Ontario. We have so many more dentists than the intelligence or means of my town require, that instead of looking for new pastures, two young men began a systematic spread-eagleism in the local press, insinuating in their advertisements that the fees which had prevailed here before they were even students, were exorbitant, and that they rendered the same services for half the money. They made startling statements of what they could do, and would do, and rivalled travelling negro troupes in the sensationalism of their headings. I was somewhat surprised, because I knew that they had no superior knowledge, and comparatively recent experience, so I spoke to them on the subject, and the reply I received was that they must get business "somehow or other," and the ethical was not quick enough. So they got several students in their office, and at it they went. I consulted with my respectable confreres. We felt that these young men could not give the public justice, as to time, and care, and work, at the fees they advertised, and we knew they deceived the public, who were not aware that this cheap work was that of unqualified students. We felt the surest way was to fight them with their own weapons, so we refused first of all to recognize them socially or professionally as more than mere tooth-tinkers, and we combined in self-defence, and advertised "loudly" but honestly, that we would give as good services at one half the fees they advertised. The result in a few months was that the public began to suspect their honesty; many of our friends who knew us as good citizens gave them the cut in society, and they were brought to such extremes by the temporary sacrifices we ourselves made, that they finally decamped, and we returned to our former fair and

moderate fees. Of course, in their efforts to depreciate our regular fees, they resorted to the very low device of quoting to their victims the depot prices of artificial teeth, vulcanite, and filling materials. They came from the gutter, and they must needs go back to it. They were never able to rid themselves of the lowest instinct of the meanest mechanic, voluntarily placing themselves, not as gentlemanly practitioners of one of the learned professions, but as vulgar and greedy grubbers in the gutter. That the offers of cheapness in trade and commerce appeal to many pockets, we need not wonder; but if they ever appeal to well-to-do people of common intelligence, in regard to the preservation or replacement of the teeth, it is only because these people are "educated," by what they read in the papers, to believe that the dentist is a mere mechanic, and entitled to no such professional consideration as the physician. The public is not, in one sense, to blame. It gets its knowledge of our qualifications largely from the loud and vulgar advertisers. The decent man of experience and ability, who simply places his name, profession and address in the papers, has no such chance of attracting attention as the scamp or cad who copies his style of advertising from a circus, and trumpets his trickery from the house top. I believe that your whole record in journalism is against my opinion; but if the practice of men who prefer to be ethical and professionally honorable is to be injured, and perhaps ruined, by men whom we know to be a discredit to dentistry, then I see no reason, if nothing else will do, than to meet them with their own weapons, and give that portion of the public who are attracted by their method of advertising, the same, and even better service for still lower fees, and that we should use the press as they use it. If the respectable dentists in a community would form such a fellowship, they could ostracize from recognition the men who have abused the profession. I hold myself responsible for my own opinions, and the experience of our success in dealing with the parties I have referred to, justify me in the belief that it would succeed elsewhere.

L. D. S.

[We admit that this subject presents many difficulties, and that the temptation, as our correspondent puts it, to "meet the cheap advertisers with their own weapons," is very strong, and in some centres might be effective. Of course, if the public get no other dental information in the press than that which the cheap advertisers supply, we must not be surprised if the public opinion of dentistry should decline. Patients who base the value of a dentist's services upon the cost of his materials are better left to the tender mercy of quacks and cheap advertisers. There are people, like the Irish peasant, who, when looking at Rosa Bonheur's "Horse Fair," and learning the immense sum for which it had been sold, exclaimed in contempt that there were not ten francs' worth of paint on it.—ED. D. D. J.]

ONTARIO DENTAL ASSOCIATION.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—At the last annual meeting of the Ontario Dental Association, it was decided to hold the meeting for 1896 at St. Catharines, on the 14th, 15th and 16th days of July; however, at a recent meeting of the Executive Committee, it was unanimously resolved to make a change in both place and time, namely, to Toronto, on the 1st and 2nd of October.

In view of the fact that the new Dental College at Toronto will be formally opened on the afternoon of Wednesday, 30th September, it has been deemed wise to postpone the annual meeting till the two days following the opening; hoping, thereby, to utilize the outside talent to be secured for that occasion, and thus render our next meeting the most successful in the history of our association.

The Executive is sparing no pains in the effort to ensure an exceptional programme bearing on the burning questions of the day, which should be appreciated by every member of the profession in the Province.

We desire to draw attention particularly to the association meeting, but there is no doubt but that the opening exercises will amply repay the slight inconvenience in being present, as the board of directors is on the alert to make it a brilliant success.

Notices and programmes, with full particulars of the meeting, will be forwarded in due time to the members of the Royal College of Dental Surgeons.

J. A. MARSHALL,

Belleville, May 4th, 1896.

Sec. Ont. Dent. Asso.

IS THE PROFESSION OVERCROWDED ?

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—One who doubts it, should find an answer in the lowness of our fees, and the wretched competition which is driving so many dentists to place themselves on a level with hair-dressers, abandoning the professional privacy of quiet offices for trade-attracting publicity. I do not know what will be the next feature introduced. These men run the lodges, the churches, the clubs, and every possible avenue to pull in business. They resort to the commonest commercial and trade tricks. They "improve" their methods of getting business, but they do not improve themselves, or add anything to our literature or our conventions—and they are deeply envious of those who do—and they carefully keep away from dental meetings, for fear that they might more fully expose their ignorance.

Dentistry is peculiar in this respect—we have so many more sham men in it. Law, medicine, architecture, civil engineering have been more fortunate in attracting a better class, and there is something in these professions which keeps a mean man from getting practice. It is not so in dentistry, and I am sorry to say that it is not alone the quacks who resort to questionable means.

There are many compensating advantages in Canada for whatever disadvantages we possess; but the ignorance and indifference of the people, as a rule, to the importance of scientific treatment of their teeth, handicaps the honest and experienced practitioner. The material development of the country needs capital; but the intellectual development needs only an intelligent press. The suggestion of L.D.S. in a late issue to use the press *impersonally* to inform the public of the value of the teeth, is wise and practicable; but I would add to that, the idea of giving to the extracts the authoritative seal of the Associations. As matters are, the profession is sadly overcrowded. Scores of young men are being educated for dentistry who are doomed to disappointment. It is better for those youths to stop now, and think, "What am I to do? Where am I to go?" I must confess, that a long experience carries my memory back to far more disappointed than successful dentists. It would be a blessing, equally to the public and the profession, if, for the next five years, there was not another dentist added to our number.

Yours, etc., I. L. ROWLITT.

CLEAN OUR SKIRTS.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—At the next general meeting of the profession, would it not be wise and timely to discuss plainly the ethical position of dentistry in Ontario, and try and devise some means to enlighten the public on the present mischievous and quackish use made of the public press by the gutter dentists? As you remarked in the January issue, the press is chiefly the friend of the advertisers, and unless we resort to the use of the press, we cannot get even with those who use it. Would it not pay the association to keep in the press a standing "Public Warning," officially signed, exposing the unreliable character and in many instances, the deliberate falsehoods of the offenders against dental ethics? Inserted as the official expression of the Provincial Association, which has done so much to elevate dentistry in Ontario, and even supported by the official expression of the College, and even, if possible, the authorities of the University to which we are affiliated, it would be a rebuke far

more influential than any amount of individual advertising. The University of Toronto, and I may add now, the University of Bishop's College for Quebec, surely do not want the stigma of association in any way with these parties, and should be willing to help us to get rid of them.

L. T.

STUDENTS PRACTISING DENTISTRY.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—Several students are quite publicly practising dentistry. I have seen the printed cards of two of these gentlemen, bearing their names with the title of "Dentist" on one corner, which they carry in their pockets, and slip to their friends, with the hint that they will do "the work" much cheaper than the regular licentiates. One of these very smart young men recently was several days in an obscure village, where there is no dentist, and not only was busy, but did a lot of irreparable damage. The licentiate to whom this fellow is indentured is responsible, and should have the indentures cancelled. The sooner we let these people and all advertising frauds understand that they are committing breaches of the law, the better. If a regular lawyer should advertise after the manner of some of our regular dentists, he would be deprived of his gown, and the right to practice at the bar. I do not see that there is half the *raison d'être* for such action, compared to those which can be given for protecting the public from the imposing advertisements of impostors.

L. D. S.

Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

26. Q.—What is the best method of applying cocain for painless extraction of pulps from teeth?

I have occasionally used a strong solution of cocain with crystals of carbolic acid dissolved in chloroform, and applied with a broach, working it carefully and thoroughly into the canal and living tissue. Sometimes this would give me the best of satisfaction. On other occasions it did not seem to give the relief anticipated.

D. V. BEACOCK, Brockville,

Reviews.

Lehrbuch der Conservirenden Zahnheilkunde. Text-book of Conservative Dentistry. VON W. D. MILLER, a. o. Professor at the University of Berlin. Published by Georg Thieme, Leipzig.

The author, Dr. W. D. Miller, is too well known as a writer and practitioner of dentistry to require any commendation. He has presented to his German reading colleagues and students a book of 416 pages, with the above title, and supplied it with 420 illustrations. The book is, in the full sense of the word, a text book for both practitioner and student. The author has kept in mind throughout the whole the conservation of the teeth, and goes minutely into every detail of the object in view. The book is divided into five parts.

Part I. Die Therapie der Defecte der harten Zahnsu-
stanzen. (Therapeutics of the Defects of the hard Toothsub-
stances.) Chapter 1st.—Die Behandlung der Defecte der harten
Zahnsu-
stanzen ohne ausfüllen. (The Treatment of the Defects
of the hard Toothsubstances by other means than filling.) Chapter
2nd.—Das füllen der Zähne. (The filling of the teeth.) This
chapter treats very exhaustively of the manner of filling teeth ;
gives in detail a description of all materials employed, the instru-
ments used, and the manner of their manipulation, how to keep
them in order, disinfecting them, etc., the examination of the oral
cavity, the exclusion of moisture with means and material used,
preparing cavities, treatment of hypersensitive dentine, the prin-
ciples involved in filling with the different forms of cohesive and
non-cohesive gold, plastics, porcelain, etc., with a description of
the operation peculiar to each. Next is a classification of cavities
and the methods employed in each case, the use of the clamp,
separators and matrix, treatment of fractured teeth, finishing
fillings, treatment of secondary caries ; and concludes the chapter
with a description of the Herbst rotation method.

Part II. Die Therapie der an der weichen Zahngewebe auftretenden Störungen. (Therapeutics of the Diseases of the Soft
Tissues of the Teeth.) Chapter 3rd.—Behandlung der frisch
freigelegten gesunden pulpa. (Treatment of the healthy, newly
exposed pulps.) A short but very good chapter, giving methods
and materials used for capping, and the properties each should
possess. Chapter 4th.—Behandlung der erkrankten Zahnpulpa.
(Treatment of diseased pulps.) Hyperæmia, pulpitis and their
causes ; trauma abrasion, fillings, regulating teeth, thermal changes
and treatment of the different stages of the condition ; devitalization

of the pulp in permanent and deciduous teeth, conditions when and how to proceed. Chapter 5th.—Die Behandlung von zähnen mit nekrotischer pulpa. (Treatment of teeth with necrotic pulps.) This chapter is particularly worthy of note. The author explains the treatment of the different stages of necrosed pulps—not infected, partly infected, totally infected, in first stage of decomposition, decomposed pulp with abscess—following with a description of the treatment and filling of root canals, and the materials best adopted thereto. Chapter 6th.—Die Behandlung der Wurzelhautentzündung. (Treatment of pericementitis.) Gives the causes leading thereto and their treatment. Divides it into two classes, primary and secondary. Primary, from mechanical, chemical or parasitical; secondary, (1) in consequence of local affections, pulpitis, or gingivitis; (2) in consequence of general debility or diathesis; syphilis, diabetes, scarbut, rheumatism, gout, exanthema, influenza, cold, etc. Chapter 7th.—Die Alveolar Pyorrhœa. Chapter 8th.—Zahnschmerzen, odontalgia.

Part III. Das Reinigen und das Bleichen der Zähne. (The Cleaning and Bleaching of the Teeth.) It comprises the removal of salivary calculus and stain from the teeth; how to use the scalers, brushes, rubber cups and wheels, etc., for cleaning. For bleaching, it gives specifics generally used, the action of the same, and strength required.

Part IV. Die Prophylactische Behandlung der Zähne. (The Prophylactic Treatment of the Teeth.)

Part V. Die Behandlung der Milchzähne. (The Treatment of Deciduous Teeth.)

The book is well written, and up to date in all departments. The author has omitted all antiquated methods and theories, and has given only such that have been thoroughly tested and approved of by practice. He has spared no pains in making the book interesting as well as instructive, and deserves great credit for the labor he has expended in writing it, also for his other publications and articles that appear in the dental journals from time to time. On more than one occasion has he shown that he is master of the pen as well as of the excavator. Typographically the book is all that may be desired, and it should be in the library of every dentist who understands the German language.—CARL E. KLOTZ, L.D.S.

Manuel du chirurgien-dentiste, publie sous la direction de CH. GODON, directeur de l'Ecole dentaire de Paris. *Pathologie des dents et de la bouche*, par le Dr. Leon Frey, ancien interne des hopitaux de Paris, professeur a l'Ecole dentaire de Paris. 1 vol. in-18, de 279 pages, avec 32 figures, cartonne. 3 fr.

La loi du 30 Novembre, 1892, en creant un diplome officiel de

chirurgien-dentiste, oblige ceux qui veulent à l'avenir exercer la profession de chirurgien dentiste, à des études spéciales et à des examens déterminés. M. Godon a pensé répondre à un besoin des élèves autant qu'à un désir des professeurs en réunissant, sous une forme facilement assimilable, toutes les matières qui font officiellement partie de l'enseignement de l'étudiant dentiste et sont exigibles aux examens.

Il a voulu que cet ouvrage put encore être utile aux praticiens, qui retrouveront sous une forme claire et précise les matières qu'ils ont apprises au cours de leurs études, en même temps que les travaux intéressants qui, jusqu'en ces derniers temps, ont paru dans les revues scientifiques ou professionnelles et qui constituent un progrès dans la science ou dans la pratique de la "dentisterie."

Pour rendre ce travail plus complet et plus profitable il y avait avantage à le diviser en plusieurs volumes et à confier chacun d'eux à un collaborateur ayant acquis par des travaux antérieurs une compétence spéciale. M. Godon a suivi, pour la division des matières, le programme des examens tel qu'il a été indiqué dans le décret du 25 Juillet, 1893, et tel qu'il est appliqué à la Faculté de médecine de Paris. Le "Manuel du chirurgien-dentiste" a été divisé en cinq volumes: "Anatomie des dents et de la bouche," Dr. E. Sauvez; "Pathologie des dents et de la bouche," Dr. L. Frey; "Thérapeutique dentaire, anesthésie, formulaire," Dr. M. Roy; "Clinique dentaire, Dentisterie opératoire," M. Godon; "Prothèse dentaire, Orthodontie," M. P. Martinier. Les deux premiers volumes viennent de paraître (Prix de chaque volume cartonné, 3 fr.).

Nous recommandons cet ouvrage à nos lecteurs du Canada, dont la langue maternelle est le Français. En effet les séries entreprises par M. Godon, sont bien ajuster pour être ajoutées à la liste des ouvrages dont on se sert à Québec.

Dental Pathology and Practice. By FRANK ABBOTT, M.D., Professor of Dental Histology, Surgery and Therapeutics in the New York College of Dentistry, etc. With ninety-seven illustrations. Philadelphia: The S. S. White Dental Mfg. Co. 1896. Pp. 237. Price \$3.00.

In his preface, Dr. Abbott disavows any intention or desire of exhausting the topics discussed in his volume, and distinctly frees himself from any suspicion of entering into the minute details expected in more comprehensive works. It is natural to expect that in a work of this kind, the conclusions of the professional triumvirate, Bödacker, Heitzmann, and Abbott, would be intensely *en evidence*, which is sufficient to assure the reader that they would be widely disputed, in relation specially to dental histology. The persistence with which these learned writers declare that they have "satisfactorily cleared up" controversial questions regarding development

of the teeth, caries, etc., is praiseworthy enough, were it not in direct contradiction to the careful researches by histologists, whose methods and conclusions are more widely received. The creed of the triumvirate is not as infallibly believed by themselves as it was some years ago. It is but fair to say that the questions are by no means "satisfactorily" cleared up, and that very formidable objections made to their opinions have not been at all satisfactorily answered, much less refuted. In this sphere of investigation the microscope may perhaps find supplementary aid in the Röntgen rays. The author has the courage of his convictions in repudiating certain methods of practice, which, no doubt, will bring dogmatic critics about his ears. Success in any line of operative technique may justify his conclusions, for there is not much more infallibility in one opinion than in another, where success is honestly proven. The reader will have interesting opportunities to reconcile some of the conclusions of the author with the positiveness of most of his contemporaries, who are equally honest and able. Probably many who study the work will be disappointed in its comparative barrenness where fullness was expected, and in a measure of amplification, which possibly might have been omitted. Dr. Abbott, however, makes no pretense to absolute completeness. There is always room for Sir Oracle, but he has not yet appeared.

Legislation.

REQUIREMENTS NECESSARY TO PRACTICE DENTISTRY IN BRITISH COLUMBIA.

1. To be a graduate of some English, Canadian or American College recognized by the American Association of Dental Faculties, and pass a satisfactory examination in the following subjects: Anatomy, Physiology, Operative Dentistry, Dental Pathology and Therapeutics, Chemistry, Materia Medica, Anæsthetics, Oral Surgery and Metallurgy.

Prosthetic Dentistry.—In prosthetic dentistry the applicant will be required to do the following work: One full upper denture on rubber; one partial denture, not less than four teeth on gold or silver; one continuous gum set, not less than four teeth; one porcelain inlay; one gold crown; one bridge, not less than four teeth; one partial rubber, not less than four teeth.

Thirty days' notice, accompanied by the fee, \$30.00, to be sent to the Secretary before the examination will be given.

Box 69, Victoria, B.C.

T. J. JONES, L.D.S., *Pres.*

A. R. BAKER, D.D.S., *Sec.*

Dominion Dental Journal

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[No. 6

NEGLECT OF THE TEETH IN COUNTRY DISTRICTS.

It is not generally known to the public, but it is an indisputable fact, that in no part of the Dominion is there more neglect of the human teeth, and more ignorance of their functional importance, than in the country districts of the Province of Quebec, and no less among the English than the French population. Physicians in Ontario, as a rule, avoid interference in the diseases of the teeth, excepting where there is no dentist within their limits, but in Quebec we have known, upon several occasions, young successors to medical men receive as one of the legacies of practice of their predecessor, large jars or bottles full of extracted teeth, ninety per cent. of which a dentist would have saved ! We have had many opportunities to observe the serious extent of the various diseases of the teeth in the Eastern Townships especially, and to learn from intelligent country physicians who do not make a business of extracting these organs, that the constitutional and especially the nervous affections due directly to diseased teeth, are alarmingly on the increase. A large number of the affections of the eyes and ears are traced to abnormal conditions in the mouth, and which get no radical cure, excepting through proper dental treatment by experienced dentists. Digestion is impaired on account of the absence of the teeth. Beauty not only loses one of its chief charms, but strength loses one of its

important aids. Sandow once said that he never knew a man of great strength who was a victim of dyspepsia, or who had bad teeth. There is no more common cause of headache, neuralgia, diarrhoea, and various other disorders than diseased conditions of the teeth, and it is astonishing to reflect that in the mouth, the portal of life and health, many people will tolerate filthy conditions, which they would not endure in any other part of the body. A whole train of obscure nervous and sympathetic affections owe their exciting cause to diseased teeth. There may be no decay or pain frequently, but the ears, the eyes, the stomach, the head, etc., suffer. The teeth are not merely mechanical mills to grind food, requiring only mechanical treatment, by mechanically educated men. They are as important and necessary to the mouth as the fingers to the hand; and even were it not so, the suffering following their neglect, and the decline of general health due to their loss or disease, should impel people to pay them more attention. It has been said that it is a wise dentist who knows his own teeth, and it is a fact that no one can faithfully examine his own, or discover the beginnings of decay. The sufferings endured by hundreds of neglected children, due to the silly superstition that the loss of temporary teeth, which should last seven years, is no functional loss, is something appalling in Canada, especially in country districts. Our farmers' families, especially, are martyrs to the effects of bad teeth, and frequently bad dentistry. They wait "until the tooth aches," and foolishly expect then that the dentist can perform a miracle upon an organ which, by the death of the "nerve" has lost its chief nutrition, or they let the physician extract it. It is questionable if the care of the teeth of cattle would not become popular if it could be proved that it would add to their market value, and yet the care of the human teeth, which contribute so much to the health of the entire body, is overlooked! No doubt some of the prejudice entertained by country residents against dentists is due to the quacking and imposture of uneducated practitioners, who go about seeking teeth to extract and patients to swindle. But there are plenty honest and skilful dentists; and it would be as unreasonable to condemn a whole profession for the iniquity of one, or even a whole practice because of an occasional failure, as to condemn the entire practice of medicine because there are quacks in it, or because death occurred where recovery was expected.

The quack and the "cheap Jack" do not confine their operations to the cities. A short time ago two notorious quacks named Lee and Wright made a raid through Compton County, but escaped before the detective of the Dental Board could catch them. They represent a class who have no licenses to practice in the Province and are law-breakers for whose arrest there is a reward.

They skip and jump from village to village, and farm to farm, without a higher thought or ambition than to bleed the farmers, and it is curious that the more these people lie, the better they seem, for the time being, to succeed. The country districts need well-educated dentists as much as the cities, and almost everywhere there are such qualified men. But if they are expected to remain there, they must have the confidence and intelligent support of their communities. The dentists form a very important addition to the means of preventing and treating several of the most painful and extensive diseases of the age. There is no other disease so prevalent in every country as decay of the teeth. The press of the provinces owe a duty to their readers to arouse interest in this matter.

We may refer in this place to the injustice the public in country places suffer from the periodical raids of travelling quacks, who look upon farmers and village residents as easy subjects for humbug. The mischief these tramps do, under pretence of cheapness, and of possessing wonderful and exclusive remedies, is well known to respectable dentists. But imposture must have its victims in the country as well as in the city, and if the cheap adventurers cannot find sufficient fools in the cities to keep them going, they will endeavor to drum them up in the rural districts. We feel it our duty to *ask the co-operation of the press* and the leading men of these districts, in protecting the people from one of the most bare-faced humbugs of modern times—the “Cheap Jack” in Dentistry.

STUDENTS' MISTAKES.

In presence of students doing their best in a written or oral examination, one is frequently struck with the superficial knowledge they possess of theory, while, probably, having in some measure distinguished themselves in practical work. Gold fillings and gold bridges are exhibited, very much to their credit, showing in many instances ingenuity and skill. It is apparent that what is essentially mechanical is easier of apprehension, as well as of execution, and that the moment pathological conditions arise, involving more knowledge of symptomatology, physical signs, etc., the most of students get into deep water and the empirical treatment to which we are all frequently forced to resort, governs them from start to finish. To an examiner, who in spite of an unswerving determination to do justice, though the heavens should fall, yet who has common sympathy, this condition is pitiful. To witness the mental struggle to explain some of the simplest questions in theory; the frequent ignorance of the fundamental principles without which practice is nothing, but as purely mechanical as laying

one brick upon another ; to be obliged to play the detective and watch for cribbing, shows that the average student is too eager to get into practical work, and too anxious to do without theory.

The matter is not one difficult of remedy. The freshmen should not be allowed to divert themselves from their books and dissections. It will take them all their time the first session to do justice to anatomy, physiology and chemistry. Our indentureship system is an excellent one and affords the student the best possible opportunity to get a minute, practical knowledge of laboratory work. But the principle of letting students dabble in operating in any shape or form is wrong. The best dentists have been generally made from the young men who have had a thorough training in theory and laboratory work before they went to the chair. There is no greater nuisance about an office than the youth of one or two seasons' studentship, who flatters himself that he knows it all, with respect to prosthetics, and that nature designed him for an operator. These kids generally discover their mistake when they have got their license.

A TRIP TO EUROPE.

Nothing restores the worn and weary dentist like an ocean voyage, and there is no route from America to Europe to be compared with that by the St. Lawrence. One can spend a day or more in historic Quebec, and embarking there, enjoy an inland journey of three days of the seven through the picturesque scenery of the river and the rugged scenery of the gulf. One has a chance to get accustomed to the surrounding of the vessel ; to know the passengers, and brace up generally if he is not a good sailor. And by the St. Lawrence route there is no line as pleasant to go by as the *Dominion*.

We write from a good deal of experience. It is easy to say that one line is no better than another ; but take, for instance, railway travelling—will anyone pretend to deny that the entire organization and the conduct of the employees to the public on the Canadian Pacific Railway is superior to that of other lines in Canada ? The same management pervades the Dominion line. The new vessel, the *Canada*, which will leave this season, is the largest and finest steamer that ever entered the St. Lawrence.

AN INGENIOUS COAL OIL HEATER.

Mr. Thos. Mason, hardware merchant, 2445 St. Catherine Street, Montreal, showed us recently a neat and convenient arrangement, suitable for the laboratory or office of a dentist where the use of coal oil is necessary. It is a very handsome and solid oil stove, of

three sizes, for one, two or three burners, made in Canada, and each one of which bears a certificate of inspection and trial before sale. The oil cylinder of brass is not in direct contact with the lamps; the wicks are large and circular, and give forth a powerful heat, which will boil water in a minute or two, and raise and regulate the heat in the vulcanizer to perfection. There is no smell or smoke; it is easily kept clean; mounted on solid steel frames; each heater having a little mica-covered door, like a coal-stove, through which the flame can be seen. It can be even used for cooking purposes. The prices vary from \$5.50, \$6.50 and \$8.50, according to the number of heaters.

Post-Card Dots.

"WHOSE teeth do you recommend?" Nature's.

TO LET.—A dental office in Hamilton; one of the best situations in the city; low rent. Address "Forceps," Box 34, Hamilton.

"IS the L.D.S. of Ontario of any use to admit to practice in British Columbia?" It is of use in qualifying you to present yourself for examination before the Board of Examiners of British Columbia.

"I AM a victim of insomnia and nervous depression, and after every day's work at the chair, I am obliged to lie down for an hour before I can get up an appetite to eat my dinner, etc." Give up dentistry, and go to Manitoba farming.

"WHAT are the qualifications for practice in Bermuda, the Bahamas, and Barbadoes, and Cuba?" No legal qualifications required. There are six dentists in Bermuda, two in the Bahamas, and five in Barbadoes, and five hundred in Cuba.

"ARE there any dentists in England, since the death of Sir John Tomes, possessing titles of knighthood?" Sir Edwin Saunders, dentist to Her Majesty the Queen, is the only one. Montreal enjoys the distinction of having a practising dentist who claims to be the legal heir to the throne of France.

"WHAT is the origin of the word 'cadaver'?" An abbot, about 1216, conceived himself an etymologist, and as a specimen of his powers left us the word "cadaver," a corpse, thus dissected: "Ca," quoth he, is abbreviated for caro; "da," for data; "ver," for vermicus. Hence we have "caro data vermicibus," flesh given to the worms. Yet this hardly applies to the cadaver to-day in the dissecting room.

"WHERE can I get 'Dental Caries, and the Prevention of Dental Caries,' by Henry Sewill, M.R.C.S., London, England?" It is out of print. It was published by Balliere, Tindall & Cox. It is, however, embodied in Mr. Sewill's larger work, "Dental Surgery, including Special Anatomy and Pathology," published by the same firm.

IN the warm days that are now before us, when a rubber glove cannot be worn with comfort while engaged in prosthetic work, an anointment of honey for the hands will subserve the same purpose. It holds the dirt in suspension and dissolves very quickly when immersed in water, leaving the hands soft and clean. Take clarified honey and rose-water, of each one pint, listerine, two ounces. Mix and bottle. For winter use add two or three ounces of glycerine.—*Dental Items in The Medical Brief.*

"How do you explain the fact that, as a rule, men of little or no education 'succeed' as dentists and doctors, where educated and capable men frequently fail?" One might give more answers to this query than there are letters in it. "As a rule," educated men have learned humility and modesty the deeper they study and investigate. "As a rule," the other class would starve if they were humble and modest. An educated man rarely resorts to bluff and pretension, and self-applause; he values more the good opinion of a few educated men than the admiration of the masses who are ignorant. The following old story may serve for another answer, which we will paraphrase for our purpose. A dental empiric was asked by a regular and respectable dentist how it was that, without education or skill, he contrived to live in considerable style, while *he* could hardly subsist. "Why," said the other, "how many people do you think have passed us lately?" "Perhaps a hundred." "And how many of them do you think possess common-sense?" "Possibly one." "Why then," said the quack, "that one goes to you, and I get the ninety-nine."

Obituary.

MR. M. P. DUBOIS.

We regret to learn of the death of M. P. Dubois, editor of *L'Odontologie*, President of the Association of Dentists in France, and a Professor in l'Ecole Dentaire. M. Dubois was knocked off his bicycle and run over by a coach in Paris, and died in a few hours. As a distinguished contributor to dental science, and one of the most progressive dentists of France, his loss will be severely felt.

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No. 7

Original Communications

REPORT OF THE COMMITTEE ON SCHOOL HYGIENE ON DENTAL INSPECTION.

MR. CHAIRMAN AND GENTLEMEN,—At the last quarterly meeting of this Board the question of the inspection of the teeth of children was discussed. The matter was brought before you by the reading of a report from the Educational Committee of the Trades and Labor Council, forwarded to this Board, in which an opinion highly favorable to dental inspection was expressed.

A "memorial," presented by the Local Council of Women of Hamilton, through its Executive Committee, in which it drew the attention of the Board to the serious deterioration of the children's teeth, and asking that the Board recommend the appointment of one or more "dental inspectors" to visit all schools and public institutions in the province, was also submitted.

Herewith your committee presents a copy of this report.

"Educational Committee's Report of the Toronto Trades and Labor Council.

" FEBRUARY 7th, 1896.

" *To the delegates assembled :*

" Your Educational Committee beg to report for your consideration :

" I. Examination of teeth in the public schools.

" The letter from Dr. J. G. Adams, referred to your committee, has been duly considered. After a conference with the doctor, a sub-committee was appointed to proceed to the dental hospital on

Elm Street, near Yonge, where Dr. Adams demonstrated, by the examination of the teeth of a number of children under treatment, that there existed some necessity for the proposal to have a periodical examination of children's teeth, with a view to their preservation and the saving of the children from much suffering, also their parents much trouble and annoyance.

"It is a somewhat startling fact if, as the doctor alleges, the teeth of each succeeding generation of children are deteriorating until it is now becoming a serious matter. He assured the deputation that the teeth shown were a fair average specimen of the general condition of the teeth of the young at the present time. Assuming the doctor's statement to be correct, and from a quarterly on 'dental' matters, issued by Ash & Sons, of London, England, in an article 'On the decay of teeth in the national schools of Germany,' by Dr. C. Rose, of Freiburg, Baden, Germany, the doctor's statements were fully confirmed. We give the following extract in corroboration :

"In England, through the indefatigable activity of the British Dental Association, it has come about that at various public schools, dentists have been appointed with a fixed salary. These dentists examine the children from time to time, and if desired treat them free of charge. In Germany the "Union of the Dentists of Baden" has, at my suggestion, undertaken a general investigation of all the higher schools of the country. Further, in Germany, Sweden, Denmark and Hungary, individual dentists have taken the trouble to examine a larger or smaller number of school children free of charge. The results of these investigations alone should be sufficient to convince the German Government of the necessity of dental hygienic measures in the national schools. I am not so confident as to hope that with us in Germany, as in England, salaried dentists will, within a measurable distance of time, be appointed. But one urgent duty the German Government cannot shirk: they must see that school children receive thorough instruction as to the utility of good teeth. The teaching which a growing child imbibes in school from its master sticks fastest in its memory. Even if all the doctors, dental surgeons and dentists were disposed to instruct the wider circles of the population through public lectures, etc., the knowledge of the importance of thorough attention to the mouth would be imparted but slowly. It is very different, however, when the schools undertake to further public measures of sanitation. The national school-masters already require cleanliness in dress and body of those committed to their charge, and here and there during the object lessons the most needful measures for the care of the body are discussed. How easy it would be to interest children as to the better care of the teeth within the present educational scope.'

"Fully aware of the suggestions that might be made, that evidence was prepared for your committee, the quotation we have given from Dr. Rose effectually dispels the idea. It is quite evident that there exists an imperative necessity for instructing our children upon the care of the teeth; the sooner this is done the sooner will the many evils arising from the present neglect be stayed.

"The possibilities of the propagation of disease in our public schools through the present condition of the children's teeth, the suffering of and the consequent discomfort of the parents, are features in our daily life which would be soon remedied by the proper instruction in our public schools as urged by Dr. Rose in Baden, and Dr. Adams, in Toronto.

"The proposals of Dr. Adams are that a periodical system of examination should be had at once, with a view to the immediate amelioration of many evils, the parents of children being advised by the examiner's report of what is required to be done, free of charge, at places duly appointed for that work. Dr. Adams and many other dentists are willing to undertake the work of examination and the dental work, so that the cost to the taxpayer would be very small; but legislation is necessary to give effect to a system of examination. At the present stage it might be safe to make it permissive with School Boards to have periodical examinations if they desire it.

"We recommend that the Minister of Education's attention be called to the matter, and the Public School Board be urged to investigate it, and if the evil is as represented they be still further urged to adopt a system of examination, if they have the power to do so; if they have not, to seek the requisite powers."

A letter addressed to Dr. Bryce on the same question by J. G. Adams, L.D.S., was also read at the same time. The following is a copy of the letter:

"TORONTO, February 10th, 1896.

"*P. H. Bryce, Esq., M.A., M.D., Secretary for the Provincial Board of Health.*

"DEAR SIR,—Allow me to call the attention of the Provincial Board of Health to the alarming change in the quality and condition of school children's teeth of the present day, and the effect of this condition on the health of the children.

"For the past twenty-three years, in addition to caring for the teeth of the children in my regular practice, I have, with the aid of assistants, carried on dental hospital work among the children of the poor of Toronto, filling and caring for their teeth free; and in addition to this I have examined the teeth of a large number of children in the public schools in leading cities of Canada, and also

in some of the American schools, including the largest German school on this continent, besides the teeth of some hundreds of children just arrived from England, as well as from Russia, Syria, Japan, and of the Indians and half-breeds of our own country. The examination of so many thousands of children has given me an opportunity such as very few persons have had of noting the condition and the change that is going on in their teeth. I find that children's teeth decay at a much earlier period than they did formerly, and that the quality of the teeth is so much inferior that unless they are filled as soon as they begin to decay, when the cavities are very small and before the nerve pulp has become exposed, they are soon past all hope of being saved. I am speaking of the permanent teeth, not only of the sixth-year molars, but also of the twelfth-year molars, bicuspid, and superior incisors which now often begin to decay in a year or two after being erupted, and it is a very common thing to find some of them past being saved before they have been six months erupted.

"In all the cities I visited I found that 95 per cent. of the children had permanent teeth decayed, ranging in number from two to twenty per child, and that the same unhealthy and neglected condition universally existed, as very few of the children had any of their teeth filled, and the teeth and mouths of a large percentage of them were in a very unhealthy and often disgusting condition, not only injuring their own health but also the health of the teachers and the other children who are compelled to sit side by side with them in the often overcrowded and ill-ventilated school-room, inhaling the pestiferous air which has been exhaled by these children, having vile, dead, abscessed, pus-covered teeth and roots. During the six months when economy in fuel and fear of draughts compel the windows to be closed, this polluted air is heated up and breathed over and over again, and it is always getting viler as the hours go by. But this is not all; children whose parents try to care for their teeth are compelled to drink out of the same cup that these children have polluted with the pus that is so frequently exuding from the gums around the abscessed teeth and roots in their mouths. There is also another source of danger to the younger children from the common custom of chewing gum. The children often lend their gum to their playmates, and thus after being crunched into their vile teeth and mixed with pus it is placed in the mouths of other innocent and unsuspecting children.

"I am sure it is not necessary that I should say anything more to convince you of the need of some prompt action being taken to prevent this wholesale sacrifice of children's teeth and its accompanying effects on their health, education and prospects for useful lives. I shall just call your attention to one other thought, which

I consider is a very serious one, and that is, that these girls whose teeth are in the state I have described will, in a few years' time, be the mothers of the next generation. What about the chances of their children, unless we now do our duty by their mothers, and give them a fair chance to grow up as strong, healthy women?

"I am thankful that, after years of personal experience, I am able to say that this can be done; but it will have to be by systematic half-yearly dental inspection of their school children's teeth in time to save them. In connection with this inspection, dental hospitals for the care of the teeth of the children of the poor would require to be provided, all of which can be done without increasing the taxes of the citizens, as this work can be made self-sustaining.

"The Toronto Trades and Labor Council has taken much interest in the subject, and has passed a resolution to be forwarded to the Minister of Education and the Public School Board, requesting that action be taken in the matter of providing systematic dental health inspection for the children in our public schools.

"Trusting that your Board will give this important subject (which has much to do with the welfare of the present and of the coming generation) its careful attention,

"I remain, most truly yours,

(Signed)

"J. G. ADAMS, L.D.S.

"Toronto, Ont."

The following resolution, which was moved, seconded and unanimously adopted by the Toronto Dental Society, was also submitted: "This Society, appreciating the menace to the present health and physical development of children whose teeth are in an unhealthy condition, desire respectfully to represent to the Provincial Board of Health, in view of the importance of the health and well-being in future years, of good and useful teeth in childhood, it is in the highest degree desirable that some scheme be devised to direct public attention to that subject, and that the Board of Health be requested to give the matter its earliest consideration."

Dr. Herbert Adams, a physician of this city, who was present at a session of the Board, was also heard on the question.

It was finally decided to refer the matter to the Committee on School Hygiene with instructions to report.

In forming an opinion on the necessity of dental inspection, a city physician is unable to draw as largely from his personal experience of dental disease as he can in judging upon the prevalence of ordinary diseases with which he is familiar in his practice. Dental ailments for many years have been peculiarly the province of dentists, and few physicians, except some in the

country, pay any attention to diseases of the teeth. Most of us have, no doubt, seen some patients who, having been too freely dosed with mercurials, have lost their teeth, or who, having incautiously used too strong acid mixtures, have been obliged to have their teeth filled or perhaps extracted.

It must also have been observed by many physicians that decay of a tooth has not been discovered by the sufferer until severe pain, and perhaps irreparable mischief, have ensued. Many adults pay but little attention to their teeth; some never use a brush or tooth wash, while at the same time consuming foods and drinks containing acids or substances which, like sugar, cause an acid change in the mouth, thereby exposing the enamel of the teeth to a very destructive action.

Many also eat by preference soft foods, such as the soft parts of bread, pastry, etc., which require but little mastication, and thereby lose the salutary cleansing effect produced on the teeth by chewing solid foods, which require vigorous mastication before they are swallowed.

Children who are beginning to get the permanent teeth require more attention than has been devoted to them, even in well-to-do families. It is not that they require to go frequently to the dentist, but rather that their teeth should be inspected, at least every six months, in order to discover the beginning of decay in the permanent teeth. The old adage that "prevention is better than cure," applies to these causes peculiarly well.

The small pin-like cavity is easily filled, and decay arrested for a lifetime. When inspection has been neglected for a few years examination reveals, on the contrary, immense cavities which cannot be filled, and unfortunately the offending tooth has to be extracted, thus laying the foundation for further injury to the other teeth, and bringing about the necessity of false teeth.

It has frequently been made a matter of observation that the people of Canada suffer from decayed teeth more than their European congeners. Reliable statistics on the subject are probably not available, so that in forming an opinion one has to be guided by the experience and observation of practising dentists.

In a recent meeting of the Local Council of Women of Hamilton, Mr. J. G. Adams, a Toronto dentist, gave expression to some views on this subject which will bear repeating. Mr. Adams states that "fully 50 per cent. of the public school children of Canada have bad teeth, and that bad teeth are the cause of much of their sickness, and cause the spread of a poison through their system. To some extent the bad teeth were hereditary, but the condition was largely brought about by the use of soft foods, and the eating of too much candy and other stuff that had a destructive action on the enamel of the teeth. In England the teeth are

examined in the training schools, and dentists fill decaying teeth. Dental hospitals are found to work very successfully. There is a great contrast between these two lands—the one where teeth are cared for, and the other where they are not. There are ten people in England with sound teeth to every one in Canada, where 95 per cent. of the people have bad teeth. Bad teeth are one of the greatest inducements to dyspepsia, and it is a noticeable fact that in the charitable institutions of Toronto there are much better teeth than are to be found in the public schools.” Mr. Adams suggested that there should be an inspection of teeth in the schools, with a dental hospital for the children. It would not be compulsory for the parents to have their children’s teeth fixed, but the inspection would let them know in time if the teeth required attention, so that future trouble might be avoided.

In order to find out with what frequency dental disease affects children who are otherwise healthy, it is necessary to step outside the ordinary routine of practice, and to examine them in large numbers. For this purpose children in schools are best, as it is easy to investigate them with regularity and without risk of repetition.

On the initiative of Mr. Fisher, of Dundee, and Dr. Cunningham, of Cambridge, such an investigation is being carried out in various parts of the United Kingdom by members of the British Dental Association. Children in parochial schools, industrial homes and national schools are being examined, and valuable statistics will, it is to be hoped, be forthcoming, as the condition of each child’s mouth is being permanently recorded, and every tooth is taken note of.

R. Denison Pedley, M.R.C.S., L.D.S., England, in October last year, issued a manual on “The Diseases of Children’s Teeth, their Prevention and Treatment,” giving some statistics obtained on this subject by himself and Mr. S. Spokes.

The dental condition of 3,800 boys and girls, whose ages range from three to sixteen years, is recorded. After detailing the conditions found under the headings, “temporary teeth,” “permanent teeth,” “unsound teeth,” and “sound dentitions,” Mr. Pedley concludes his remarks as follows :

“Under the heading ‘sound dentitions’ we enumerated those cases in which there was an absence of diseased teeth. Many of these were passing through the transitional period between the first and second dentitions. Some children required merely the easy extraction of temporary teeth to place them in a satisfactory state ; but it is a fact, which merits careful consideration, that out of 3,800 children’s mouths inspected there were only 828 in which neither fillings nor extractions were required.” He continues, “The facts above mentioned show very clearly that the hygiene

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of the mouth requires some consideration from another point of view, viz., as it affects the community. The children examined belonged to the poorer classes. The schools, Southall, Hanwell, Sutton and Feltham, were situated within twenty miles of London in extensive grounds, where the inmates have all the advantages of good air and healthy exercise. They are gathered from various parishes in London. They are clothed, housed, fed and educated at the public expense.

"In connection with each school is a large staff of teachers, with band and drilling masters, and they are all under expert medical supervision. These points are only mentioned in order to show that the environment was generally good, and the children were living under healthy conditions; yet, notwithstanding all this, a vast amount of preventible disease existed among them.

"The boys in such schools are either taught a trade or enter the Army or Navy. The girls are trained for domestic service.

"According to the report of the Army-Medical Department for 1890, published in 1892, of 55,673 recruits examined, 21,712 were considered unfit for service. Of these 506 recruits were rejected on account of 'loss and decay of many teeth,' and although the rejections were by no means so numerous as from other diseases, yet this is an interesting statement, and not only points to the prevalence of bad teeth among the working classes, but shows clearly how lads from rate-supported schools may be disqualified from lack of cleanliness; 458 girls from pauper schools of the metropolis alone entered domestic service in one year. Five-sixths of that number had never known the use of a tooth brush. The troubles of a domestic servant suffering from neglected teeth need little imagination to picture, but disordered digestion, irritability of temper, and inability to perform the allotted duties, are some of the most obvious results which may appeal to employers."

From these statistics your committee must naturally conclude that dental diseases are common among young people and children in England. It remains to be proved, therefore, that there is relatively a larger proportion of such diseases in Canada. That there is unfortunately a great deal of preventable dental disease in this country, we are quite prepared to admit, and we heartily concur in the wisdom of the practice adopted in England and Germany of inspecting the teeth of school children, giving them the necessary attention, and instructing them in observing a proper hygiene of the mouth.

Your committee would therefore recommend that this Board would suggest to municipalities the advisability of appointing, through their local Boards of School Trustees and Local Boards of Health, dental inspectors who would periodically visit the

schools, examine the children's teeth, and advise them what course to pursue. The advice would in many cases be most valuable, preventing, at a small outlay, subsequent pain, sickness and deformity, and laying the foundations of good digestion, the fruitful parent of sound health.

The practice of having the teeth examined periodically would enable the children to form an excellent habit of attending to their teeth during the formative period of life, and avoiding habits of diet which have, by experience, been proved to be destructive or injurious to the teeth, either in childhood or adult life.

It would be more satisfactory to have the natural teeth preserved by this system of inspection than to have the children exposed to the complete loss of some, or all their teeth at a later period. (Carried.)

Your committee have learned that the dental inspection of a school can be done efficiently and rapidly in a very short time, so that the objection need not be raised that the time properly devoted to teaching will be wasted. Even in a large city like Toronto two inspectors, accustomed to such work, could attend to the children of the city schools. (Carried.)

A dental hospital might also be started for the benefit of the poorer children who would not be able to pay the dentists for the necessary services. (Carried.)

In doing so the municipality would be simply expending money in a most important work of mercy and utility, fully as necessary in its way as the support of public hospitals for the treatment of medical and surgical diseases.

Your committee would also recommend that the attention of Hon. G. W. Ross, Minister of Education, be drawn to this matter, and that a copy of this report be sent to him. (Carried.)

All of which is respectfully submitted.

(Signed)

J. J. CASSIDY,

P. H. BRYCE,

Committee on School Hygiene.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

VARNISH FOR LINING CAVITIES.—Gum-mastich dissolved in chloroform makes a varnish which excludes all moisture and acts as a non-conductor.—*J. C. Brewer.*

A TWO per cent. aqueous solution of trichloroacetic acid to moisten the pumice is perfectly harmless. I have used it in my practice for some time, and find it far superior to tincture of iodine for removing the green stain on children's teeth.—*W. H. Jones.*

COMBINATION FILLINGS.—“Combinations of filling materials are often far more valuable than the use of any of them separately. Thus an osteo lining adds to the value of an amalgam filling. Amalgam at the cervical part often adds to the value of gold fillings on the approximal sides of molars and bicuspid, and guttapercha, at the cervical part of osteo fillings in certain approximal cavities, also is valuable.”—*W. Cass Grayston, L.D.S. in Dental Record.*

THE RISKS OF ANÆSTHESIA.—It is stated that sixty-one deaths under anæsthesia have occurred within the past year in the United Kingdom, of which fifty-two were from the administration of chloroform. This would be a fearful indictment against the use of the anæsthetic if unsupported by statistics of the relative number of patients subjected to its influence and to the influence of other anæsthetics. But if the number of chloroform cases was fifty-two times the number of nitrous oxide cases, chloroform would appear to be no more dangerous, although it might have caused fifty-two deaths for one death caused by the latter anæsthetic.—*Medical Press and Circular, Jan. 22, 1896.*

ALLOY AND CEMENT.—Dr. W. E. Driscoll, writing to the *Dental Digest*, describes his method of using alloy with cement, in filling teeth. He mixes the alloy with mercury, as dry as will work well, and presses it into a flat button about the thickness of a silver dime. The cement is then mixed so as to be in its stickiest condition, and the cavity filled. Before it has had time to set, the button of amalgam is pressed onto it, the cement squeezing out being cut away from edges and the amalgam burnished down. Dr. Driscoll has not filled a cavity without amalgam in eleven years, and believes the time will come when it will be considered malpractice to use amalgam without first lining the cavity.

MISSION OF THE MATRIX.—And this is the mission of the matrix, to give certainty, where there might be possibility of a doubt; to lessen fatigue by infinitely diminishing obstacles to be overcome; to make possible that which in many mouths is otherwise impossible. Everybody knows what the mission of the rubber dam was and what a boon to suffering dentists and their equally suffering patients; second only to that in importance and value is the mission of the matrix.—*Dr. G. C. Daboll in Dental Review.*

ADMINISTRATION OF COCAIN.—Dr. G. E. Hunt thinks that the "per cent. solution" in cocain is very largely responsible for the many noticeable ill effects, as few dentists put up their own solutions, and have but hazy notions of the number of grains employed. He suggests, instead of the usual method, that the intended dose be dissolved in an indefinite convenient quantity of water and the entire amount exhibited. This will impress dosage on the operator as no other method will, and has the additional advantage that each solution is fresh, when administered, and therefore is more reliable than if prepared for some time.—*Dental Register.*

AS to making fillings wet I hardly know how to speak strongly enough in its condemnation. It is true any tyro can put amalgam in a wet cavity, and it is also true that the amalgam will hold together and will become hard, and it may stay in the cavity for some time. But such a filling will leak all the same, no matter what amalgam is used, no matter how it is manipulated. The walls of the cavity cannot be perfectly dried by pressing in the filling. Therefore it will be leaky as all sub-marine fillings are, and always have been. It is abominable that men of this day and generation will persist in doing such slop work and call it dentistry.—*Dr. G. V. Black, in Dental Practitioner and Advertiser.*

AMALGAM.—Mr. C. Robbins read before the British Dental Association an interesting paper on "Amalgams in Every-day Practice," in which he advances some strong arguments in favor of this much abused article. The fact of its increased usefulness, in spite of all that the "hobby riders" have said against it, is a proof that it is a case of the "survival of the fittest." Some of these same hobbyists are altering their views and using amalgams. In the essayist's opinion amalgam is an "absolute necessity" to an honest man who desires to do the best thing for his patient. Although gold is the royal metal to use under circumstances favoring it, amalgam has the advantage over gold of being useful in frail teeth, where gold would not be permissible, as in cases of patients with poor reserve of health. The failure of amalgam, he

is convinced, is often due to its not being sufficiently respected, too little time being given to the preparation of cavities, insufficient care taken in packing, and frequently no care in the matter of after polishing. If success is to be expected with amalgam every stage must be as carefully and accurately defined as in the use of the nobler metal. Mr. Robbins also advocates the use of osteoplastic materials to fill the large bulk of cavity, using amalgam only as a veneer, thus preventing shrinkage and discoloration to a large extent.

A HIGHLY instructive and scientific paper, entitled "Notes on Enamel and Dentine," was read by Mr. C. S. Tomes before the Odontological Society of Great Britain, and published in the transactions of that Society for February. Mr. Tomes was led to undertake this investigation by a study of Dr. Black's experiments published in *Dental Cosmos*, and while agreeing that Dr. Black's conclusions are in general to be relied upon, yet claims that more exact results may be arrived at by some improvements in the technique adopted. Dr. Black's method in examining specimens of dentine was to take slices from the necks of teeth, dry them at 100° C., and then incinerate them in a platinum crucible, the loss of weight being taken as organic matter. Mr. Tomes sawed across the teeth at the necks, drilled out the dentine with a spear-pointed drill, care being taken to drill out dentine only for examination. These shavings were dried in an even temperature of 100° C., for eight hours, weighed in a platinum crucible, ignited and weighed again. In order to restore any carbonic acid driven off by ignition the ash was moistened with ammonium carbonate, then dried and weighed again. As the turnings were not removed from the crucible during the experiment, and as about twice as much dentine was available by this method it was claimed more accurate results could be obtained. Mr. Tomes' experiments do not confirm those of Dr. Black, in which teeth from the same mouth differ more in their percentage of lime salts than teeth of good and fair quality from different mouths. From an examination of several jaws Mr. Tomes found that the corresponding teeth on opposite sides of the mouth gave the same results in every case, and also that the dentine of bicuspid and molars is more highly calcified than that of the incisors and canines. The one set of imperfect teeth examined gave lower percentages for all the teeth than the other more perfect sets, whereas Dr. Black's experiments went to show that teeth of poor quality are as highly calcified as those of good quality.

Proceedings of Dental Societies.

ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO.

The annual announcement for the academic year 1896-7, and the report of the proceedings of the annual meeting of the Board of Directors, and special extra work has been issued, and has, no doubt, been received by the licentiates.

For some years past the Directors of the Royal College of Dental Surgeons of Ontario have been preparing to erect a suitable building for teaching purposes, which should belong to the dental profession of the province.

For this purpose the Board has been slowly accumulating funds from the surplus of students' examination and lecture fees. At the annual meeting in March, 1895, it was decided that the financial problem was solved, and that the time had arrived for action. A lot was purchased, plans prepared and contracts let, work being commenced early in August, 1895. By December 15th the roof was on and the building closed in. It is now, in the summer of 1896, being completed, and will be ready for occupation October 1st, 1896.

The building is 50 feet front by 106 deep, three stories and basement, and contains about 18,000 square feet of floor space. The material is brown stone and pressed brick. No expense has been spared to make it solid and durable. The inside is all finished in hardwood; special attention has been paid to heating and ventilation, which is expected to be practically perfect.

The fittings and appliances for teaching dentistry will be of the most modern type and fully equal to the best dental schools of the United States or Europe.

The cost of the property, including fittings and appliances, will be approximately \$45,500.

TWENTY-SECOND SESSION, 1896-7.

The twenty-second session of the School of Dentistry, Toronto, will open on the first Tuesday in October, 1896, and continue until the last of March, 1897. The introductory lecture will be given at 5 p.m. on October 5th, 1896. The Dean will be at the College to register students on October 5th, from 2 to 4 o'clock. Seats, chairs and lockers will be assigned in the order of payment of fees in cash.

The number of students in attendance during the session of 1895-6 was as follows: Freshmen 82; Junior class, 47; Senior, 32.

The report is exceedingly interesting, and shows the great amount of work being done for the profession and the public. On account of the college, lot and building, \$25,917 has been paid, and the directors were authorized to raise a loan of \$12,000. It was decided to formally open the new building in connection with the meeting of the Ontario Dental Society on the 1st of October next. Further particulars later on.

A REMINDER.

The Executive Committee of the Ontario Medical Association, and the Committee of Management for the opening exercises of the new Dental College, are hard at work preparing a bill of fare for the combined meeting, which begins on September 30th, the exercises of which will prove to be exceedingly attractive, so much so that we have no hesitation in saying that in every respect it will outstrip anything of the kind ever held in the Dominion.

The number and reputation of the outside talent, together with the exceptionally interesting subjects and clinics to be presented and discussed, coupled with the formal opening of our substantial, capacious and thoroughly equipped college (our ALMA MATER), will prove to be elements which will more than satisfy our most sanguine expectations that an overflow meeting is in prospect.

We propose to be prepared for such an emergency, and in due course of time issue to the members of the R. C. D. S. and their wives, programmes and invitations which will request answers signifying an intention of attending and making application for seats for the formal opening. Seats will be allotted in the order in which the applications are received.

J. A. MARSHALL, *Sec.*

DENTAL ASSOCIATION, PROVINCE OF QUEBEC, BOARD OF EXAMINERS.

The examinations in practical, operative and technical work was held during two months, and the written and oral examinations commenced in the Dental College on April 1st, and continued for three days.

In the matriculation examination Dr. Aspinall Howe and the Rev. Abbe Verreaux were the examiners. There were eleven candidates for admission to study.

The following received the matriculation certificate: Sydney George Brown, H. J. J. Ladouceur, R. G. McCabe, D. McHarg, Ernest Burns Scroggie, Dudley Welch.

There were eighteen candidates for primary examinations, with the following results :

Passed in anatomy—F. H. Bradley, E. A. Cleveland, J. A. Jutras, E. E. Kent, George Kent, W. G. Kennedy, J. K. McDonald, jr., J. A. Rollit, F. M. Wells, L. M. P. Yvon.

Passed in chemistry—A. D. Gareau, A. E. Giles, E. E. Kent, George Kent, H. Lautier, J. K. McDonald, jr., J. A. Rollit, Joseph Versailles, F. M. Wells, L. M. P. Yvon.

Passed in physiology—E. A. Cleveland, A. E. Giles, W. G. Kennedy, E. E. Kent, George Kent, J. K. McDonald, jr., J. A. Rollit, F. M. Wells, L. M. P. Yvon.

Passed in metallurgy—A. E. Giles, J. A. Jutras, George Kent, W. G. Kennedy, A. Langlois, J. K. McDonald, jr., A. O. Rioux, J. A. Rollit, Jos. Versailles, F. M. Wells, L. M. P. Yvon.

There were sixteen applicants for license, of which the following passed and were granted the diploma of Licentiate of Dental Surgery : E. J. Adams, John Boyne, Fred H. Bradley, F. W. Brown, E. A. Cleveland, A. C. Jack, Henry Kerr, C. F. Morrison, Fred Paquette, James M. Shaw, A. E. Vadeboncœur and F. M. Wells.

The Board of Examiners consist of : S. Globensky, L.D.S., D.D.S., Vice-President ; George W. Lovejoy, M.D., L.D.S., D.D.S., Treasurer ; A. W. Hyndman, L.D.S., D.D.S., Registrar ; J. Nolan, L.D.S., D.D.S., L. J. B. Leblanc, L.D.S., D.D.S., W. G. Beers, L.D.S., D.D.S., Dean and representative of the Dental College of the Province of Quebec ; and A. H. Beers, M.D., L.D.S., D.D.S., medical representative of the University of Bishop's College.

Reviews.

Extraction of the Teeth. By I. F. COLYER, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon and Lecturer on Dental Surgery to Charing Cross Hospital, London. C. Ash & Sons, 5, 6, 7, 8, 9 Broad Street, Golden Square, West. 1896.

This monograph of 102 pages, well illustrated, and well written, will be found useful to students, and especially to those in active practice who never were, or who have ceased to be, students, and who need educating much more than those who are not yet licentiates. The superstition still prevails in nearly all general hospitals on this continent, and to a large extent among dental as well as medical students, that the extraction of teeth is a much less difficult operation than the removal of corns, and that it is

quite safe for the enterprising tyro to go on pulling excursions in the human mouth, with rusty instruments and musty knowledge of the anatomy of the teeth or adjacent structures. The book comprises chapters on the general principles of extraction; the extraction of individual teeth; of misplaced teeth; the use of anæsthetics during extraction; difficulties, complications and sequelæ of extraction.

Shikwa-Igaku-Sodan, a medical journal devoted to the investigation of dental science. Published by Takayama Dental College, Tokyo, Japan.

Dr. K. Takayama is dental surgeon to H. I. M. the Emperor. He is also President and Professor of Operative Dentistry in the Japanese College, having a staff with him of nine other professors. The college was founded in 1890, after Dr. T. had had seven years' study in the United States, having over one hundred students. In 1891 the department of the Interior of the Government held an examination for the license to practice dentistry, and seven students graduated. The course of studies consists of three years. The text books were all written and published by Dr. Takayama, comprising ten books. The efforts of the doctor are very interesting and worthy, and add another tribute to the genius of the Japanese in modern progress. The journal itself is in this way a welcome addition to our exchanges, though Japanese has not been included in the qualification for matriculation in the United States or Canada. However, we have no doubt it will prove quite as interesting as any of its English contemporaries, to those dentists who boast that they do not need to read the journals.

No one ever thought of introducing so expensive a feature as lithographic color work in the days when the leading magazines sold for \$4 a year and thirty-five cents a copy. But times change and the magazines change with them. It has remained for *The Cosmopolitan*, sold at one dollar a year, to put in an extensive lithographic plant, capable of printing 320,000 pages per day (one color). The cover of *The Cosmopolitan* is a surprise each month, from the pencils of such artists as Rossi, Eric, Pape and Wilhelm von Friedrich. The June number is up to the high standard of excellence set by the enterprising editor, John Brisben Walker. A poem by Robert Burns Wilson, "The Immortal Three," illustrated by the author; instalments of characteristic serials by Frank R. Stockton and Beatrice Harraden; short stories by Joseph A. Altsheler and Gertrude B. Stanton and timely articles by Ellen W. Mayo, General Miles, Chatfield-Taylor and the Editor go to make up one of our most welcome journals.

Correspondence.

"EDUCATED" QUACKS.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—You are merciless upon quackery, and quite right. We are cursed by the ignorant pretenders. But let me tell you that the worst offenders, and the men who deserve the most severe condemnation, are not those who are ignorant pretenders and open quacks, but more than one fairly well educated licentiate and doctor of dental surgery I could name. Some of them cunningly make a great splurge in the public press, they "go the whole hog," and then when they are cut off by the printers who cannot get their money, they pretend to turn over a new leaf, and think they can deceive us by their mock respectability. They only want the means to pay for their advertisements to repeat their quack methods. I hope that our societies will be careful not to receive such men in their midst. Some have got in under false pretences already, and I hope they will be expelled. They have no consideration for us. Why should we have any respect for them.

Yours, etc.,

OTTAWA.

OUR POSITION AS A PROFESSION.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—There is an important work which only a Canadian journal can do for Canadian dentists, and which has been done by ours, to my knowledge, with unvarying consistency ever since was issued the first number of the *Canada Journal of Dental Science* in June, 1868. In that issue the late Dr. C. S. Chittenden, of Hamilton, one of the pioneers of the profession in Ontario, contributed an article condemning all sorts of quackery in dentistry, and you adopted the principle of a high standard of ethical as well as scientific aspiration, that our profession should be respected by the public as a recognized ally of the healing art. Apart from the scientific aspect of journalism, a great deal had to be done to suggest and assist the organization of the profession ; to educate many in the proper and professional lines of conduct. No doubt we owe a great debt to these efforts in our Canadian journal ; and more than ever, when over-competition has tempted so many to resort to the baser methods of getting practice, a fresh demand is made for your lead again towards professional respectability. No foreign journal could afford the space to do this for us, and I am sure that every thinking dentist of any respectability in Canada

must see the importance of taking even more than a regular monthly interest in the DOMINION DENTAL JOURNAL. There should be, I feel, a rule in our college, that every student will be supplied with it regularly during his course. It is the young men we want to guide and guard, and no text book teaches them professional ethics. Our profession in Canada owes a vast deal to the efforts of the JOURNAL.

Yours, etc.,

I. L. ROWLITT.

MEDICAL MEN AS QUACK DENTISTS.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—The remark you made that, if the medical profession would appreciate fully, and apply intelligently the knowledge possessed by dentists, which would be of direct and collateral benefit to hundreds of other patients, dentistry would not be overcrowded, has just received another striking illustration in my practice, and it is only one of hundreds which occurred in my experience. You will remember the case of irregularity caused by thumb-sucking, for Miss M., which you had in hand for several months, and which deformity was reduced to a perfectly regular arch. Upon removal to this village you confided her to my care. The retaining plate was continued, as the cuspids were not developed when she left you—the intention being either to remove the less important first bicuspid on either side, or make room otherwise laterally for the development of the valuable cuspids, for the extraction of which there was, and rarely can be any excuse. About a month ago the patient came and showed me that the cuspids had appeared in the usual irregular place outside of the arch—the laterals and first bicuspids being almost in contact. I instructed her to return in another month and I would continue the necessary regulating to bring them into line.

One of the village physicians, who boasts of the number of teeth he extracts, and who keeps them on exhibition in his office as a temptation to patients to patronize him instead of the dentist (!) got hold of the girl, and unknown to her parents or myself induced her to let him extract these two cuspids, notwithstanding the fact that he knew she had been under the hands of two dentists, for the purpose of regulating them! Such ignorance, and such a breach of professional courtesy should be exposed. It is high time that physicians should abandon the mean and unscientific business of extracting teeth for the sake of the paltry fee. It is quite time, too, that they should condescend to inform themselves of the functional importance of their preservation, and the frequent serious consequences of their diseases.

Yours, etc.,

A VILLAGE DENTIST.

Dominion Dental Journal

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DENTAL AND MEDICAL INFECTION.

In the last July number of the *Montreal Medical Journal* an article appeared with the rather sensational heading, "Infection in the Dentist's Chair," descriptive of the case of a housemaid, who was admitted to the General Hospital a month after she had three teeth extracted. She complained of "sore throat and sore gums, and tender, painful teeth," not a very rare experience, under the circumstances. A week after she was admitted she died. The case was reported—as the result of the autopsy—as one of septic infection, and without actually knowing anything whatever of the facts as to the condition of the instrument used by the dentist, and without investigating the circumstances preceding the girl's entrance to the hospital, the startling accusation was made that the infection was caused "in the dentist's chair." A reply to the article was sent to the editor, but never reached him.

Reasoning from analogy, the author of the reply endeavored to show that the possibility of infection in the dentist's chair, or from the dentist, was very much less than from the general physician, especially if he practised surgery, and from general hospitals, and an article by Professor Fournier, of Paris, in a recent medical journal so well expresses and exposes this position that we take the liberty of making extensive quotations. It is an undeniable fact

that physicians do infect patients in various ways, through the hands, through instruments, through transportation of organic substances from syphilitic organisms to sound organisms, and through the clothes. Professor Fournier's article is confined to syphilitic infection. He shows that by digital examinations—and quotes facts—that syphilis is conveyed by direct transportation, as it were, and refers to an epidemic of syphilis in the eighteenth century which originated through a syphilitic midwife, who continued practice despite the lesions upon her hand. Referring to instruments, Professor Fournier specially blames the bistoury, the lancet, the accessories used in applying simple or scarifying cups (glasses, razor and scarifier), the probe, the speculum, the Eustachian catheter, the tongue depressor, the laryngoscope, and the various articles used in surgical dressings—lints, sponges, linens, etc.

"Side by side," says the writer, "with the speculum may be placed the tongue depressor. The mouth is examined on all possible occasions in dental diseases, in throat maladies, etc., and thus may become the focus *par excellence* of syphilitic contagion; the least inattention may prove disastrous. After examining the oral cavity of a syphilitic, full, perhaps, of mucous plaques, the tongue depressor is laid aside without cleaning, and is forgotten; another patient comes in whose mouth is examined by means of the same implement, and infection is the result." Professor Fournier exposes, too, the dangers from the use of nitrate of silver pencils, which are now interdicted in French hospitals. Skin-grafting, vaccination, etc., come in for their share of condemnation in the same relation.

Quite as important as any causes of infection, are those which occur from the physician to the patient, and *vice versa*. The physician may be infected in the face and in the hands by direct contact with the contaminating pus, or by contact with the globules of sputum projected from the mouth or throat of the patient. Physicians are exposed to a "veritable rain of salivary globules" while cauterizing the throats of patients, as small-pox and syphilis have both been contracted in this way. "Manual chancre is the medical chancre *par excellence*." This may arise during operations on the penis, vaginal examinations, obstetrical manœuvres, operations on syphilitic subjects, also wounds received during autopsies.

It is a sad and startling fact, that professional syphilis is not uncommon, contracted in practice. It appears to be more dangerous to life than that ordinarily contracted, because, as Professor Fournier argues, the physician is morally depressed, is overdriven, and is inadequately treated. "A man of the world may contract syphilis, become pre-occupied and wretched, but we can console and reassure him by all manner of specious arguments. The physician, on the contrary, knows too well what the malady means, and the danger that will menace him in the future."

The possibility of infection of various kinds from house to house conveyed by the family physicians; the difficulty of excluding it invariably from hospital practice; the slovenliness of some practitioners, who proceed from surgical to obstetrical cases, and whose ether and instrument bags will frequently not bear inspection, which the chair, the instruments, the linen, or the person of the average dentist will stand, should make medical critics of "dental infection" think twice and investigate fully before, from glass houses, they throw stones.

"FAIRY TALES."

For most of the nonsense and superstition prevalent in the public mind about dentistry, dentists themselves are responsible. How did the French saying, "To lie like a tooth-extractor," originate? Simply because the tooth-tinker told fairy tales to assuage the fear of his patients. What is the reason that so many patients to-day believe that when a cavity is filled the tooth is insured against further disease; that when a pulp is dead all pain should forever cease; that the deciduous teeth are of no functional value; that the mouth should never again change after a "permanent" (?) set is inserted; that plates should never break; that the dentist should keep them in repair without cost, and a lot of other such absurd nonsense? It is chiefly due to the pretensions made in the press and in practice by quacks, and by men who are not quacks, but who descend to quack methods of drawing patients. It is because we have men in our ranks who find it too much trouble to teach patients the truth, and so easy to accommodate them with falsehood. It is a curious fact, which goes a good way to tempt morally loose men to lie, that many people will gulp down a deliberate falsehood, when they will choke at the honest truth. Dentists are busy men as a rule, and naturally those who are not paid for consultations dislike to give three dollars' worth of time to get two dollars' worth of operations, and as it is so much easier to convince many people that a lie is a truth than that the truth is a lie, the patient gets what he accepts the readiest, and the dentist gets business. The dentist is not in business specially to educate the public in his office, unless, at least, he can make it pay his expenses. This is all the more reason why co-operative education through other means, to counteract the nauseous advertiser, should become a part of the object of the local associations. As a rule, dentists do not risk exposure by telling fairy-tales before the association. They keep their vulgar self-praise for that portion of the public who would believe that Satan was a saint, even if they held him by the tail and saw his hoofs, providing that Satan advertised loudly, and reproved sin.

QUACK ADVERTISING DOES NOT PAY.

"If I can make one dollar more a day by what you call 'the degradation of the profession,' I'll do it," said one of the quack-method advertisers. "I'm in this business only for the dollars in it, and if I thought I'd make two where I now make one, I'd hang signs and show-cases and banners all over my house. I'd advertise what I have to dispose of just the same as if I cleaned chimneys instead of teeth, and put in water closets instead of artificial teeth."

Well, to make a long story short, he did so, and to make a short story long he was sold out by the Sheriff, and will never be able to retrieve either his professional or personal failure.

It is suggestive that the most brazen-faced advertisers in every part of Canada have, as a rule, eventually turned out miserable failures. Occasionally we meet a sincere penitent who has seen the folly of his ways, and who is manly enough to confess it, and advise young men what to avoid. But the persistent and impenitent sinner against the code of ethics, whether subscribed to in writing, or merely assented to, *nemine dissente*, has almost invariably made a wreck of his present as well as prospective career. Impecuniosity, like abject poverty, is no crime. But men who publicly declare that they can do or will do what no other dentist they insinuate can do or will do, or who swagger in vulgar pretence in print, are dishonest. It is well that we know just where to place them, and how far to trust them, so that even when they show signs of ethical repentance, we are justified in the suspicion that it is due less to moral reform than to the ruin of their credit, or the exhaustion of their funds.

The following authentic record of some of these short-sighted people in one city of Canada is, to say the least, suggestive, whether the facts are explained as a consequence or a coincidence:

1. Effects seized and sold by a bailiff before removing to the city. Several judgments for debt against him.

2. Publicly living with a woman who is not his wife. Seven judgments against him.

3. A gambler and blackguard of the first water, whose wife publicly accused him in court of conniving to use her to blackmail other blackguards.

4. Accused of arson and keeping an immoral house. Warrant issued for his arrest, but absconded over the line 45 minutes before it could be served.

5. Refused a license upon the grounds of bad moral character, and was obliged to return to the United States.

6. Publicly known for immoral living. Putting on style at the expense of his creditors. Seven judgments against him.

7. Died in a lunatic asylum as a pauper.

8. Is insane now.

9. Known as a champion liar. Five judgments against him.

10. Gone to the dogs.

None of these men were ashamed of their shame. They gloried in it. To paraphrase the poet, no doubt they still believe

“’Tis better to have advertised and bust,
Than never to have advertised at all.”

INFIRMARY PRACTICE.

We are in receipt of a large number of letters confirmatory of the views expressed in the March issue on this subject. That the students who are going forward for a license, or a degree, must have sufficient infirmary practice, goes without saying, but that this practice should in any way encroach upon the legitimate practice of those who are already licentiates, is wrong in principle, and of direct injury. It would be better to devise some means of doing all operations and laboratory work *gratis* for *bona fide* inmates of the charitable and benevolent societies of Toronto and Montreal, than to encourage any system of free service among the class who are ever ready to sponge upon dentists and physicians, and who are quite able to pay the moderate fees of many junior practitioners. Special cases of “deserving poor,” not included in these institutions, might be specially considered, but the healthy, well-dressed and well-fed mob which constitutes a large proportion of the patrons of dental infirmaries, have no claims whatever. The dentists of Toronto and Montreal have it in their own power to stop infirmary imposture. Students in this matter are really a secondary consideration. If we are to satisfy their needs by starving their preceptors, the foundation stones of those Provincial Homes for Poor Dentists might be laid beside the two provincial colleges.

POKE FUN AT THEM.

If you are forced to discuss with the quack method advertisers, it is better to poke fun at them than to talk seriously. If you cannot shun them, you can ridicule them. It hurts a decent man's reputation to be seen sitting at the same table with them. Sometimes one cannot avoid them, but it is better to talk of the weather, the crops, or of bicycling than of the teeth, or of advertising. The

quack and the quack method advertisers who possibly succeed in drawing the patronage of the credulous or the ignorant, would like occasionally to be seen in the company of respectable confreres, in the hope that he may thereby draw in that source as well. We know that the vamping in print of these quack method advertisers is ridiculous. They know it too. But they do not like being ridiculed. Some of them would rather be kicked blue. If you kicked some of them they would feel flattered. But to inquire from them if it is true that they are buying second-hand sets now; that they wash their hands now, or that they have invented a combined show-case and machine in which passers-by can drop a penny in a slot, put their heads in a hole and get their teeth cleaned; that sort of ridicule is worse to them than a trial by jury, or a month in jail. Poke fun at them!

"IMPROPER CREDIT."

The editor of the *Ohio Dental Journal* takes the editor of the *Items of Interest* to task for appropriating original material from other journals, without giving credit to the latter. The latter admits that he instructed his subordinate not to give credit to the journals, but to merely mention the name of the author. We are not disposed to believe that Dr. Welch would do this from any desire to deprive his contemporaries of their just rights, much less from any intention of passing off the appropriated articles as original. But as a method of editorial business it is loose and unfair. It has been repeatedly brought before our notice. The practice is common among daily newspapers. It is a well understood belief of editorial ethics that it is, to say the least, unjust. It has, too, "the appearance of evil," in assuming credit for what belongs to a contemporary. It opens an honorable editor to the imputation of piracy. We do not think that Dr. Welch, intentionally, is either a plagiarist or a pirate. From our experience of him he is a very honorable and respected gentleman.

DENTAL ADVERTISING.

We propose publishing the advertisements of the shining lights of dental advertising in Canada. In some cases the advertisers conceal their names. As they should not blush for their own productions, we propose to publish their names all the same. We may devote an entire number to this matter, including the code of ethics. We solicit copies of all objectionable advertisements, and in cases where the names are concealed we would like to have them.

HINTS TO ADVERTISERS.

[We think it only fair to give the quacks and those who say they are not quacks, but who cannot say that they do not use quack methods, the benefit of some suggestions sent us, about advertising. We will be glad to receive any other suggestions.—ED. D. D. J.]

WORLD'S MEDICAL AND DENTAL COMBINE!!!

COMBINATION OF THE WORLD'S MARVELLOUS
MEN!!!

*Branches of our "Parlors" in all parts of Europe, Asia, Africa,
America and Mars.*

"INCURABLE DISEASES" CURED!

*Mumps and Measles, Fits and Fevers, Dysentery and Drunks a
Specialty!*

Get one of our "Electro-Humbugo Liver Pads," and live for a
Century!

Get one of our "Cobble-Stone Chewer" Sets of Teeth. They
bite, you bet!

\$10 sets for \$5.

\$5 sets for \$3.49.

\$3 sets gratis, with a Free Lunch.

Teeth and Corns Extracted with Musical Accompaniment!

Only *Sacred Music* with extractions on *Sundays!*

Heavenly and Hilarious Harmonies for Hypochondriacs.


Babies Vaccinated on Bargain Days Free.


Our "Universal Cosmical Cure-All" will revive the dead—
dead beats, dead heads, and dead drunks.

Wrinkles removed and Dimples done to order.

OLD SETS OF TEETH BOUGHT.

Old sets of Deceased (or Diseased) friends sterilized, and made
to fit all comers.

 We bury free those who do not survive our treatment.
During the College session we compound for corpses—light
weights preferred.

 We keep open *All Night* for those who are ashamed to be
seen coming to us in day-time. We do most of our business
at night.

Our Crown and Bridge Department is in charge of several Crowned Heads, and the builders of fourteen Japanese, Chinese and Chicago Junk Shops. They meet you at our door, and take you in at any time. Easy sleep the heads that *wear our* Crowns!

We use the X rays. It helps us to raise the wind in warm weather.

Balloons and Bicycles ready, with our Associates in full war-paint, Local Anæsthetics, Forceps, and Life Insurance Policies.

To meet the demands of busy men our Experts will fill or pull your teeth on the cars.


We do not charge for advice, examination, etc., as we give you the worth of your money.

FREE LUNCH AND BATH WHILE YOU WAIT.

Your Boots polished while you are having your Teeth "Fixed."

Second-hand clothing taken in exchange for our Sets of Teeth.

Our Artificial Teeth are away ahead of your natural Teeth, because you can put them in your pocket when you're sick, pawn them at your "Uncle's," raffle them, wager them, play poker with them, or lend them to a toothless friend.

 We rent out our \$3.49 sets (sterilized each change) for 50 cents a night. Hire one of our "Perfection" sets when you go to mash your girl, or a tough steak.

You can Bite through one of John Eaton's steaks with our sets!

STARTLING DISCOVERY!!!!!!

WE WASH OUR HANDS NOW!!!!!!!!!!

WE ARE STERILIZED NOW!!!!!!

We sleep in sterilized linen, and speak sterilized grammar.

And Don't you Forget it! See?

We've Syndicates for Sugar,
 And we've Syndicates for Shoes,
 We've all sorts of monopolies
 Of every kind you choose.
 But of all the brilliant fancies
 Which take the cake and wreath,
 There's nothing half so clever
 As our Syndicate for Teeth!
 Teeth! cheap Teeth!
 The whitest you ever met,
 You can chew when you're blue,
 Or bite when you're tight,
 And only \$3.00 a set!

Dominion Dental Journal

VOL. VIII.

TORONTO, AUGUST, 1896.

No. 8

Original Communications

A PLEA FOR THE PRESERVATION OF THE NATURAL TEETH.*

By N. PEARSON, L.D.S., Toronto.

The Committee on Programme have assigned the above subject to me for a paper. Had they asked me to choose a subject for myself, this certainly would not have been the title.

That they have done so leads me to think that there is a necessity for something to be said on the subject. Where it exists, why it exists, and to what extent, I am at a loss to determine.

There may be a few, one or two, perhaps a score, of dental surgeons who need reconstructing in Ontario. That there are many I do not believe. In all learned professions there will be found some whose interpretation of the meaning of a word or the sense of a phrase is very different from the generally accepted idea. So we may have those among us who do not exactly grasp the meaning of the word "Dentistry," or more particularly the the symbolic combinations L.D.S., D.D.S. or M.D.S. That these should at the present day appear to be a necessity; that there should exist an idea of the necessity for a plea for the preservation of natural teeth at this stage of professional progress, is to abandon the whole status and retrograde forty years or more, to disband the profession, throw the fat into the fire, throw physic to the dogs, as it were, and seek some honorable calling in which

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
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spheres of usefulness may open up to us in pursuit of which a just appreciation of our endeavors may be looked for.

Is not the sum and substance, the life and vigor, the brains, the whole physical being of the profession a concentration and embodiment of the principle of the preservation of the natural teeth? To say anything else is a giving away of fundamental principles. I apprehend that thirty years ago there did exist a state of things which, viewed in the light of the present scholastic training, was a deplorable era, marked by the blood of thousands of innocents, which might be termed the age of slaughter—in which time the profession was made up of broken-down tradesmen and mechanics, bounty-jumpers and refugees from foreign parts, farmers and farriers, plumbers and tinkers, who for a few dollars and six months' service were turned loose on the community and permitted to pursue their course according to the light that was in them; and everything was grist to their mill.

Happily, law and order has prevailed over this state of things, and the profession and people are protected. If I were to say that the practices that then prevailed do now exist even in remote localities to any great extent would be to beg the question and set up a straw man to be able to bowl him down. I do not believe so. Yet I am led to believe, by the action of the committee in the choice of this subject, that there does at the present day and generation exist somewhere in Ontario one or more of those fossils or pupils of the extinct race who believe that their mission is to mutilate humanity from mercenary motives. I do not expect to teach them any better; that would be too much to expect of them. As a rule, they do not attend conventions, since they "know it all now." It is easier on their conscience to stay at home and feel right than to learn better and not be able to do better. The only hope we have of them is that they will soon die and make room for civilized and enlightened beings to take their places.

Where do these people exist? Do we find them in country places, or in the towns and cities? Or, Why do they exist? There must be a demand for them, or do they create the demand?

I hold the idea that every graduate in dentistry is by virtue of his qualification an educator. To the extent of his interpretation of the technical teachings of his college days, he must be responsible for his acts and manipulations, which must be reflected in time by the community either to his credit or damage. If by a careful consideration of a certain case a satisfactory conclusion is arrived at, and a monument of skill and durability is the result, he has commenced to educate the community to his advantage. So according to his leading he may expect to find his patrons following, and if we find an isolated community given to false teeth, the chances are that the dentist is a rubber worker.

In large communities, we find all sorts and conditions of humanity, the rich, the poor, the educated and the ignorant, those from rural districts and the city bred, these call for different classes of the professions to deal with them. They differ in tastes and inclinations. One has the idea that false teeth are the perfection of life. Another has a longing for lots of gold to show. Many let their teeth decay because it's cheaper to have the new ones, and so on all through. There is a difficulty here in discriminating conscientiously, and yet there ought not to be.

In rural districts, perhaps to a greater extent than in cities, a dentist may reflect his ideas more upon his patrons, for if he is the only representative he may be decisive and firm, argumentative and convincing in just the degree that his inclination leads him. If he is an artist in rubber, false teeth is the result, and I am afraid that frequently this result is from indifference or inability, sometimes perhaps from the financial standpoint of the patient, and not from a correct measure of the state of the teeth. I apprehend that there is a tendency in all country places for improvement on the old method of sacrificing natural teeth on account of the effect of the superior education at present obtainable at our college and the good taste and ability to indulge it by the prosperous farmers and artisans making up these districts, and aside from individual cases, which prove very little, there is no doubt a change for the better in the way of saving natural teeth. It does not come within the province of such a paper as this to discuss ways and means of saving teeth, of the ability of doing so, of the various arguments as to the wisdom of doing so under varying circumstances. These points are left to the intelligent operator to decide in each individual instance for himself and to act according to his conscience. What the writer expects to do is to introduce the subject from a personal standpoint and invite discussion and criticism, and thus lead up to a consideration of the many points involved. The subject is so wide, so big, so important, that a whole week could be spent, and the whole range of the curriculum gone over from genesis to revelation.

Let me ask you a question right here, and let each one of you be prepared to give me an answer of some sort. I know each one of you will have an answer, and each one, perhaps, a different one, according to his practice, subject to local or personal qualification. The question is, When am I justified in using the forceps?

Is it in infantile age, and with the temporary teeth? No, decidedly not. Not under any circumstances until the age of the child indicates that the time for action has arrived, which to my mind is when the new tooth is ready to take its place. More harm may be done at this age by premature removal than by delaying too long. Judicious treatment, and filling, if possible, is

always to be resorted to at this age. Have a mind of your own and a policy to pursue and carry it out, and be ready to take the responsibility on your own shoulders without regard to parental or childish whims.

In removing temporary teeth, I have fallen into the habit of operating chiefly with my fingers, or by an incidental application of a probe or excavator, and very seldom, indeed, using a forceps, rather waiting until such time as they are not a necessity. Is it in the case of the sixth year molars that I am to begin malpractice, to do evil that good may come of it? That is my opinion of removing sixth year molars. To be or not to be, that is the question, whether 'tis better in the mind to suffer the stings and arrows of present troubles, than to fly to evils that we know not of.

No dentist is able to determine what the result of premature extraction of a sixth year molar is going to be upon the undeveloped maxillary; the facial derangement is more than he is able to foresee.

After years of careful observation and study of many cases in regulating, by myself and others, where these teeth have been sacrificed and when not, I am strongly convinced that there is an injudicious and wholly unnecessary sacrifice of good teeth here. I may have to admit that once in a while a case is presented where extraction is advisable, but this is the exception, while too many make it the rule. It is the shortest way out of a difficulty, the easiest way to settle the question. No account of the future years of lost usefulness, no consideration of facial expression, of the possibilities of a contraction of the maxillaries or of a deviation from the plane of the grinding surface by the future arrivals enters into the consideration; it is simply expedient to extract, and that ends it, for the time being. No account of the future ever appears against us, no ghosts of the slaughtered innocents appear to trouble the conscience or rob us of repose. Notwithstanding all this, the principle is wrong, conceived in iniquity and born of ignorance, practiced too much, and ought to be discontinued. Nature never provided a more fitting object for man's use at a more opportune time in a better plan than this same tooth, and am I, the learned and intelligent fellow-being who, by choice in a scientific specialty, and who is referred to by reason of my standing and experience, justified when I say, "I can do nothing for you," or am I justified when I say, "Oh yes, I can do so and so, but I do not choose to. I could save that tooth for a few years, but ultimately you will lose it, and it's better to lose it now; later on you won't miss it much." This looks like prostitution to me. I can't do it, and I don't do it. I save the semblance of a six-year molar at all events for six years and until nature provides another to take its place to carry on the great work for which they are so vitally

essential, which you all understand, and as much longer as skill and modern advanced dentistry may enable me to. Use your utmost skill in the case of these teeth, without regard to remuneration or desire of the patient, and a crown of glory awaits you. A duty awaits you and you must not shirk it. It does not excuse you to say that it is ulcerated, or the nerve is dead, or the patient is poor or ignorant. Save the tooth and put it down to charity, and cover a multitude of sins otherwise laid against you. As far as individual cases of extracting are concerned, as they are presented to the dentist for relieving present pain and where a denture is not immediately the question, I apprehend that there is no difference of opinion that all modern operators do make a decided attempt, and generally successfully, to save such a case. The point of hesitation and debate is generally when a few of the teeth are very much in need of treatment, or in case of a few good ones remaining and the others more or less involved in doubt as to the advisability of attempting their salvation. In the light of present progressive dentistry we can scarcely be excused in our action if we recommend a resort to extraction, except in cases of badly decayed roots. I hold a strong prejudice against removing sound roots, preferring to fill even these, where they cannot be crowned and protecting the soft tissue and upholding the alveolus as long as possible. A healthy root may be serviceable for years, especially so after treatment and filling or capping.

Looking at the esthetic effects of removing teeth and restoring by factory made articles, I presume that many will consider me wild when I make the assertion that it is a physical impossibility to restore or reproduce the natural expression to a face when once the roots of the teeth are removed; yet I make the statement and challenge the artist in dentistry who imagines he can to get up and say so. It can't be done. The canine eminence cannot be prolonged on the outside of the maxillary sufficiently high without interfering with the free motion of the lips. As soon as the roots of the six anterior teeth are removed there begins a change in the jaw too high up for any artificial contrivance to be placed for the comfort of the patient. It may be possible that this is the reason why our English brethren do not, as a rule, remove the roots when about to introduce an artificial denture, and if so, I commend them for their good taste from an artistic point of view, while from a sanitary or economic point, perhaps there is not so much to be said in its favor.

My faith in the dentist of the present and of the near future is unbounded as to their action in regard to saving teeth. Everything is promising. Their inclination is in that direction; their education is directed in that way; public taste is being directed more in that way. Humanity calls them to do so, progressive ideas must

prevail, and the time is coming when the forceps will be a quarterly or semi-annual issue. This will be brought about by honest, intelligent application. Honest endeavor and individual enterprise will help the public to see the folly of making unnecessary sacrifices. Honest dentists will help to make honest and intelligent patrons. Intelligent and honest patrons will not be rummaging newspapers to find a cheap-John to extract teeth (gas free until 1st of next month), and celluloid plates for \$10.00.

Unfortunately the curse of dentistry to-day is this system of advertising pursued by a few unscrupulous and dishonest, mercenary yet legalized men, who are prostituting the profession for selfish gain, and debauching the needy, ignorant and impecunious with the idea that they are giving them good dental service while the opposite is the case, for as they are appealing to their lower and worse natures to expect good work for unremunerative prices, they are depriving them of the better services of higher class skill and artistic results.

ASSOCIATIVE EDUCATION OF THE PUBLIC.

By B.

The newspaper press, as a rule, cannot be expected to rid itself of the idea that dental advertising cannot be overdone. It is one of the profitable sarcasms of publishers to assert that the professions think their dignity in advertising depends, like that of a life-guardsmen, upon inches. It sees no indignity in a quack lying by the yard in its advertising columns. It would be against its "principles" to let them lie even by the line in the editorials. It condemns the ethics which medicine and dentistry exact, because it deprives it of much advertising, and it condones some of the dirtiest ethics in journalism. It knows that the quack is a fraud. It knows that the loud advertiser, as a rule, is a liar, and uses the public press to deceive and defraud. It knows that no eminent or honest practitioner needs to let the world know through the press of new remedies or exceptional facilities. These professions do not give their patients the chemical constituents of a new drug, or teach them the etiology of disease. It is not necessary that patients should know whether it is better for the physician to give them a powder or a pill. It is not possible to inform the public on the relative value of the materials to be used in mechanical dentistry, or the best methods of application. If the public in any sense are ignorant of the functional value of dentistry, they owe most of it to the fact that they get their education from the quack adver-

tisements of the press. Respectable dentists cannot afford to neglect the best means and methods of serving their patients. Personal confidence in the practitioner is sufficient. The quack in his self-glorifying advertisement tries to destroy that confidence. The profession may know him personally and professionally to be a scallywag. The Board of Examiners know, if any one knows, the extent of his ability, or rather inability. And the fraud knows that the public cannot know. Individually we cannot, if we would, compete with the professional liar in the public press. But it would be proper and effective, if the Provincial Boards would spend some of their surplus funds in official education of the public. The press would then probably take sides. It would largely depend at first upon "inches." Bye-and-bye it would depend upon public opinion. Whoever will devise prompt and effectual methods of educating the public in opposition to quackery will deserve a monument to his memory. But our associations must not forget that newspapers are not published for philanthropy alone. The press is not responsible for the statements which appear in its advertisements. The field in that way is a fair one and needs no favor. Official and respectable declarations should win.

Proceedings of Dental Societies.

TORONTO AND BUFFALO DENTISTS.

A joint meeting of the Toronto and Buffalo dentists was held at Niagara-on-the-Lake, July 18th.

The meeting, which was held in the Pavilion, after a sumptuous repast at the Queen's Royal Hotel, was called to order at 1.30 p.m. Dr. Stainten was appointed chairman, and Dr. Eaton secretary. Those present were as follows: Drs. Stainten, Butler, Lowe, Wright, Eschelman, McMichael, Miesburger, Kessel, Heckler, Boswell, Grove, Allen, Wettelauffer and Robinson, of Buffalo, and Drs. J. B. Willmott, Wood, J. F. Adams, Wunder, McDonagh, Capon, Clarke, Riggs, Price, Zeigler, Trotter, Sparrow, W. E. Willmott, Swann, McLaughlin, Bansley, Martin, Waldron, Snellgrove and Eaton.

Dr. Heckler, when called upon to state the object of the meeting, explained that it was firstly to become acquainted with each other, and secondly for mutual improvement.

A paper was read by Dr. Allen, subject "Cataphoresis," which was very much enjoyed by all present. The discussion was opened

by Dr. J. B. Willmott, after which it became general. Discussion closed at 3.10 p.m.

A motion was made by Dr. Heckler to the effect that the Dental Societies of Buffalo and Toronto form a permanent organization with the necessary officers, to meet yearly for a two-days' session, with a programme consisting of papers and clinics.

An amendment was moved by Dr. J. B. Willmott and Dr. Eschelman, that it be not made a permanent organization, but that a similar meeting to this be held next year, and that a committee of five be appointed by the chairman to complete arrangements. Carried.

The committee appointed was as follows: Drs. J. B. Willmott, J. F. Adams and Eaton, of Toronto; Drs. Allen and Lowe, of Buffalo.

Meeting adjourned at 3.20 p.m.

H. E. EATON, Secretary.

ONTARIO'S DENTAL COLLEGE.

For years many of the members of the R. C. D. S. of Ontario have been looking forward to the time when they would have a college building of their own.

This is no longer a prospect or a hope, but an accomplished fact.

Both the building and its furnishings are of the most approved and up-to-date character. In order to effect this, two separate deputations of highly qualified and deeply interested members were sent at different times to investigate and copy the leading and useful features of several of the most recently built and equipped colleges of the United States. The consequence is that having profited by the experience of our neighbors, taking advantage of all that was good, new and useful in their colleges, and having received suggestions, deliberated and improved on any arrangements that were not just as thorough as desirable, on the 30th of September we will have the formal opening of as complete a dental college as any organization can boast of.

Prominent men of Ontario, not of the profession, and leading professionals of the United States, together with, we trust, the great majority of the members of Ontario, will participate in and be present on the 30th to make the opening in keeping with the dignity of the institution.

The building, which is of stone and brick, is neat and modest in architectural design, solid in construction and with general plans arranged for convenience, comfort and utility. The object of the management was excellence, and without fear of successful con-

tradition we can say that object has been fully realized. It presents to any one interested in dental education, a very profitable subject for inspection.

As has already been intimated, it has been arranged to couple with the opening the annual meet of the Ontario Dental Association, and on September 30th, October 1st and 2nd to give a united programme that to miss will be a lost opportunity, but to enjoy will be a rare treat that seldom comes our way.

We earnestly solicit a very full attendance, that it may in every respect be a very memorable meeting. Programmes and notices will be issued in a few days.

Belleville, Ont.

J. A. MARSHALL.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

MUSTARD.—In the surgical operating room of the Buffalo General Hospital common ground mustard is now used in preparing the hands for operations and in sterilizing the surface preparatory to incisions. It is an excellent disinfectant and deodorant and it is by far the most effective of the vegetable antiseptics.—*Dental Headlight*.

ERRORS IN SPEECH AMONG DENTISTS.—The editor of the *Ohio Dental Journal* rises to protest against the loose way into which many dentists have fallen in speaking and writing on professional subjects. He instances such errors as saying alveolus when we mean alveolar process, fissure instead of groove or sulcus, nitrate of amyl for nitrite of amyl, ulcer instead of abscess, bacilli instead of bacteria, ptomaines instead of toxins, and the indiscriminate use of the terms antiseptic and disinfectant.

IN preparing a tooth for the reception of a porcelain crown (Logan or Richmond), before excising the natural crown, if you will take a piece of French rubber tubing, about one-eighth inch wide and a little smaller than the tooth to be crowned, carefully work it up on the neck of the tooth and as close to the gum as you can get without causing too much pain, allowing the patient to wear it forty-eight hours, you can then face the root off underneath the gum without laceration, hæmorrhage or discomfort to your patient, which I consider quite an advantage in doing a nice piece of crown work. If natural crown is broken off, build down with cement sufficient to give room to adjust rubber tube.—*Dr. F. E. Judson*.

PAINLESS REMOVAL OF PULP ENTIRE AFTER REMOVAL OF ARSENIC.—Wipe out with a fresh solution of dialized iron and place in cavity a small pellet of cotton, saturated with tannin and glycerine (sat. sol.). Seal in with gutta percha; after ten days you can remove the pulp whole, without pain or hæmorrhage.—*H. H. Silliman, Dental Office and Laboratory.*

GLASS can be drilled quite easily with an ordinary steel drill, in the dental engine, if the instrument is kept moistened with a solution of turpentine and camphor. By the same means, cavities can be inserted for the filling of artificial teeth. In this operation it has been my custom to grind away with the corundum wheel as much of the tooth as I desired to contour with the gold and then cut the retaining shape with the drill. Although this method is not one of recent origin, it may oftentimes be found exceedingly useful.—*M. G. Jenison, Minneapolis, Minn., in Ohio Dental Journal.*

HOT WEATHER AND CHILDREN'S DENTITION.—Dr. J. C. Storey, in the *Texas Dental Journal*, discusses the causes of the great mortality among children during the period of teething, giving it as his belief the high death rate is not so much due to teething during the hot months as to injudicious feeding, allowing the infant to take into the stomach food which cannot be digested, but remains an irritant, causing the diarrhœa so often fatal to the child. A healthy child, born of a healthy mother, fed on mother's milk, until it has teeth enough to eat solid food, should have little difficulty in erupting the necessary teeth. While contending that normal dentition should not produce irritation, yet the essayist is aware that there are many cases where surgical interference is demanded and when given produces immediate relief.

EFFECTS OF CLASPS ON THE TEETH.—There is not the slightest doubt but that the clasps are destructive to the teeth they encircle, although it is a question whether that destructive influence could not be reduced very considerably if not altogether avoided, were the patient to exercise a greater amount of care in scrupulously cleaning the inside of the clasps. To do this effectually the clasps should, in the first place, be highly polished on their inner surface, and when the case is removed at night, as it always should be, if placed in a tumbler of water, along with a small piece of ordinary common washing soda, the tenacious deposit usually adherent to them is dissolved, and it can then be readily removed and the case rendered perfectly clean by a liberal use of soap on the tooth brush in the morning.—*H. Rose in British Journal.*

The *Stomatological Gazette* reports a clinic given by Dr. R. H. Cool, at a meeting of the Stomatological Club of California, the operation consisting of the removal of salivary calculus, cleansing and polishing the teeth, using iodine, pulverized pumice stone, chalk, silk ligatures, wooden points. This is considered by some to be the simplest operation in dentistry, but Dr. Cool says he finds very few of his employees have any idea what cleaning a set of teeth means. The best astringent he knows is the thorough removal of all foreign substances beneath the gums. He uses iodine evaporated to one-third, making it three times as strong as the official tincture; where deposits cannot be removed, use lactic acid. As an antiseptic solution for instruments, Dr. Cool uses one per cent. trikresol. No point or stick should be used a second time, because pyorrhœa is infectious, and for the same reason the Doctor objects to brushes.

TREATMENT OF PULPLESS TEETH.—By Dr. J. J. Grout, Rock Rapids, Iowa, read before Northern Iowa Dental Society, September, 1895. When I have a pulp to destroy, I use a paste of arsenic and creasote, applying from 1-60th to 1-120th of a grain, according to the size of the pulp and the ability of the patient to present himself for treatment. Where practicable and possible I apply tannin and glycerine after the pulp is devitalized and leave it six to eight days, when I extract the pulp entire with a broach, cleanse the root with pyrozone and campho-phenique thoroughly dry, moisten the canals slightly with eucalyptus oil, pump chloro-percha to the ends of the roots and follow with gutta percha points. Where the pulp is putrescent, I follow a little different course of treatment. After removing all septic matter possible with pyrozone, and drying, I introduce on a shred of cotton:

Carbolic acid,	-	-	-	-	-	1 part.
Oil cloves,	-	-	-	-	-	2 parts.
Oil cassia,	-	-	-	-	-	3 parts.

Seal this in with Gilbert's stopping, leaving it from two to ten days as indicated, then fill as above described. Judgment should be used in all cases as to amount of paste necessary, length of time it should be left in the tooth, what medicament should be used later, general conditions of the tooth, and the patient's ability to present himself when needed, etc. But in each and every step be conscientious and thorough. I always use the dam when possible. I also use root drills, burs and sulphuric acid to open up the root canals, when, in my judgment, they are indicated. No arbitrary set of rules can be laid down for the treatment of all cases. My advice is, use as little medicine and as few treatments as are consistent with good and thorough work.—*Dental Digest*.

DR. DAVID (*Journal de Pharmacie et de Chimie*) gives the following as the composition of modeling or impression compound :

Stearin, - - - - -	25	grams.
Copal, semi soft, - - - - -	25	grams.
Talcum, powdered, - - - - -	50	grams.
Carmin, coloring, - - - - -	0.5	grams.
Oil, rose geranium, - - - - -	6	drops.

—*Cosmes.*

THE LITERARY SIDE.—Under the title, "The Literary Side of our Profession," Dr. Wm. H. Steele, in the *Dental Register* deals with the advantages that would accrue to the dentist if he early formed the habit of systematic professional reading and writing. The young dentist starts out frequently with good resolutions in this respect, but as his practice grows and other interests crowd in, the reading is dropped, and he becomes a "back number." Dr. Steele uses as his text Bacon's famous words, "Reading makes the full man ; speaking makes the ready man, and writing makes the exact man." When the "back number" is asked to read a paper at a society meeting, he says, "I can't write ; I have enough ideas, but I can't put them on paper." Neither can a good crop be produced from an uncultivated field. Reading is the great cultivator of the human mind which prepares it for literary production, and it is impossible for one to be a good writer without being a reader. The truth of the third part of Lord Bacon's saying, "Writing makes the exact man," becomes apparent at once to the man who prepares a paper for any purpose. He arranges his thoughts, consults his authorities, and mindful that he will have to bear criticism, lops off the unnecessary word and retreats from the untenable position. Our dental journals offer good training ground for the young writer, and every young practitioner should avail himself of the advantages offered (for unless we begin writing when young, unfortunately we will not take to it when old) and contribute one or two articles a year upon some favorite subject which he is willing to take the time to investigate. As before said, he will be well compensated for his time and labor. When a man makes up his mind to write, his professional life assumes a new phase, the dogged treadmill of everyday sameness is gone, he has something to think of while pursuing his daily routine, he takes a new interest in looking for new features, his powers of observation and classification are receiving cultivation and his mind will grow and expand like a well-watered plant in the summer sunshine. The dentist located in a small country place thinks often that because he is not in the city, his opportunities are not so great for observing and keeping pace with the latest as his city brother ; but Dr. Steele points out

that as "necessity is the mother of invention," and the country dentist thrown more on his own resources, with no dental depot at his command, is often developed in originality in a way that is not possible in the city. Slip a note-book into your pocket, sharpen your pencil, and begin your notes on some subject that suits you. Add a stick of timber here and there, as you find it, to the frame until the skeleton is complete; then clothe it from time to time as you have the leisure, and next year, when some member of the executive writes you for a paper, don't say "I can't write." It is too lame an excuse. Every one has some good thoughts that stagnate for want of expression, for as the poet says, "Thoughts shut up want air, and spoil like bales unopened to the sun."

DR. H. H. BURCHARD, of Philadelphia, contributed a paper to the American Dental Association, a report of which appears in the June *Cosmos*, on "Some Principles of Bridge Work." No one, he suggests, is justified in practising bridge work unless he possesses an exhaustive knowledge of the surgical aspect of dentistry combined with the skill of a finished mechanic. Is a bridge demanded by the conditions present?—and not, Is it possible to apply one? There are two aspects of this variety of work, one mechanical, the other physiological. Under the first are included the laboratory art of the prosthetist, together with all considerations of mechanical resistance to stress, and the effects of stress as expressed in the movements of the abutments of the bridge or any part of it. As each tooth in a denture is fitted by position, structure and support to sustain a certain amount of strain, force in excess of the normal is a menace to its integrity. The construction of bridge work should be in accordance with the principles of engineering, and should be viewed as a bridge supported at two or more points designed to bear safely a calculated amount of strain. Some of the devices called bridge work show a disregard for the simplest principle of mechanics. Many examples, such as bar anchorages and extension bridges, invite failure by their reckless disregard of these principles. Bridges which have weak support, either of number or condition of the abutments, should have the masticating surface lessened to correspond. The physiological aspect includes the surgery of all the vital relations, not only the present conditions but the possibility or probability of enamel decalcifications, caries or eburnitis, any grade or variety of pulpitis, pericementitis, gingivitis or stomatitis. Using as an abutment for a dental bridge any but sound roots is equivalent to an engineer building foundations for a bridge in a marsh without piling. Bridges should, in this respect, be so constructed that any possibility of ferments and fermentable material lodging in pockets would be impossible, and also that by contact of any part of the bridge with the soft tissues irritation should not be caused.

Correspondence.

TOO MANY DENTISTS?

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—I think you struck the nail on the head when, referring to the fact that over one hundred and fifty new candidates for licenses to practice in Ontario are in the college, you remarked that there are already more dentists in Ontario than can make a decent living. When we see well-educated men calling themselves professional men publicly advertising to make a set of teeth cheaper than a pair of boots; when we see the departmental stores able to get licentiates of Ontario to demean themselves by joining in the competition with the barbers, butchers, etc., and filling teeth for forty cents a filling; when we see the few getting fair fees, and the very many getting fees for which it is impossible to honestly serve their patients, there can be no question that Toronto—as all Ontario will have!—has too many dentists. When we compare the cost of living and the cost of materials to-day, and the great accession to our implements and appliances, with what they were twelve years ago, it needs very little knowledge of arithmetic to compute the inevitable result to the practitioner. If this is to be the result of our education, there is something wrong, and while I do not see how the college could be closed, as some have suggested for a few years, I see no reason why the matriculation should not be raised, the fees and the time increased. Those who feared that the Patrons of Industry would force free trade in dentistry, have now got pretty good proof that even in the more important matters which concern themselves they have not, and cannot get, power in the province, and if they are not able, with all their wits and wisdom, to help themselves, they can never have the influence to do harm to the profession. I know that you have always maintained the importance of education; and I recognize too the worth of the work of our teachers, but one of two results must surely follow: either the profession will be so much more overcrowded that it will degenerate into a trade with trade methods and trade customs, or a good proportion of those who are educated, finding no scope in Canada, will be lost to us as citizens. Neither of these results are desirable, and I doubt if the most partizan Patron would wish either of these results to occur. Why cannot a limit be made as to the number of students to be received each session?

Yours,

ONTARIO.

WHAT JEAN BAPTISTE THINKS.

To the Editor of DOMINION DENTAL JOURNAL :

MONSIEUR,—Ma fren' tol me dat you geeve chance for dentiste speak sum leetle word bout too mooch dentiste. Bien! I geeve you one proof. Quebec province she fine countree for de poor man, and dat's reason why we all poor. But me no feel glad, because we are too much big convent and church, and so mooch people dey pray all de time and dey do no work. Now I make no quarrel meself wid de priest et de nun so long as dey mind dere beenseness. Joost now de politique go fast, and de priest go slow, because he find dat Liberal tink dey go heaven if dey want to vote for Laurier all de same, and de French dey no fool any more. Dey want be no French, no English, but all Canadian. But de dentiste got big trouble wid de nun. De Grey Nun of Montreal for many year dey have fine dentiste chairs, and de teet, and all de fine tings, and dey have some nun who fill de teet and make de teet on de plate, and dey have do beenseness like dat for feefteen year. Of course dey take no monie, because dey work for demselves. But dey break de law all de same, and dey take de beenseness from de French dentiste, and do not geeve dem one *sous*. Deese nun dey very good ladies, and dey very rich and dey got mooch house and land, and dey pay no tax. Bien! me sick of dat, and I tink de Board write nice polite leetle lettre to dem, to say dat dey break de law and dey must stop. Dey must mind dere own beenseness, or, bye-bye, tings will come in Canada joost like in France, and dere will not be so many priest and nun, and den dere will be better chance for de dentiste and de oder poor people. And I tink we go heaven all de same. I take me chance meself. Ma cousin, she say, "You be priest, Jean; dat good for de stomach, and you av no trouble." But me ax her back, "No, tank you," and I wink one eye, and I make de laff. Eff de dentiste beesness she no go, I go on de farm. Hoorah! pour le compagnie!

JEAN BAPTISTE.

Reviews.

Transactions of the American Dental Association. Twenty-fifth Annual Session, August, 1895. Publication Committee, Drs. Geo. H. Cushing, E. T. Darby, A. W. Harlan. Philadelphia: S. S. White Dental Manufacturing Company. 1896. Pp. 380.

Always readable. From two papers we make a few extracts applicable to our own condition to-day in Canada. Dr. C. W.

Stainten, on "Ought the Formation of Dental Schools to be Limited?" expressed the general regret at the multiplication of dental colleges, and "before it becomes too late," suggested proper checks and remedies. The doctor estimates that there are 25,000 dentists in the United States; an average of population to dentist of 3,134. This is too low an estimate, as is proven by statistics which follow: Buffalo's list in the city directory of 1894 included 90 dentists, where there should have been 125; this year it is 112, and should be 140. New York reports 700, while she really has over 1,200. The estimate is that there are over 32,000 dentists in the United States, and thousands more coming. In 1886 there were 24 schools, with 503 graduates. In 1895 there were 52 schools, with 1,208 graduates. "The overcrowding of our ranks in any locality is prolific in cheap and nasty practitioners, and the lowering of the standard and character of our specialty. The over-production of dentists is not a good thing either for us or for the public." The doctor advocated raising the standard of admission and lengthening the time; but the multiplication of schools "is the chief danger." The existence of so many schools was a seduction to young men. Dr. Louis Jack, on "Should not the Increase of Dental Schools be Restricted?" showed that the increase of schools was proceeding at too rapid a rate. There are over 150 medical schools in the United States, and it does not require any stretch of imagination to perceive the danger which lies before us. The dental degrees of the United States are being discredited in Europe, for the reason that the preliminary requirements of the student and the curriculum are not sufficient. Dr. W. C. Barrett, on "Whither are we Drifting?" thought men pessimists who declared that the colleges were turning out graduates too fast. He asserted that the colleges are "year by year digging the stream deeper, and making it wider in a much greater ratio than they are peopling it with occupants." He looks for the time when there will be 50,000 dentists in the United States. He recognizes the growth in importance of dentistry "at a rate that no educated body of men in any avocation has yet emulated." But the doctor rather destroys that opinion by the statement that "the American Dental Association comes the nearest to being a *true National Association* of any society that we have among us," and that it has, out of 25,000 dentists, *only 250 members!* The doctor suggested a number of great societies.

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A RETROSPECT AND A PROSPECT.

Any one familiar with the history of dentistry in Ontario from the eventful January of 1867, when a meeting of dentists called by Dr. B. W. Day, of Kingston, was held in Toronto, cannot but admit that our profession has kept pace with the general progress of the country. The first Board of Examiners was composed of Drs. Day, Chittenden, Wood, O'Donnell, Scott, Callendar, Relyea, Lalonde, Kahn, Meacham, Elliott and Leggo. Of the original members, Drs. Chittenden, Scott, Bowes, Bogart, Lalonde, R. Reid, Lemon and Snider, are dead. On the 23rd of January, 1868, there were on the roll forty-five active members, fifteen incipient members (having had less than five years' practice) while only ten absentees had taken the license. Of these seventy, Dr. H. T. Wood, one of the charter members, and Dr. J. B. Willmott alone remain in harness. Our experience goes back into early student life, when Dr. Brewster, of Montreal, had, seven years previously to the passage of the Ontario Act, been in active correspondence by circular with the dentists throughout Ontario and Quebec, and met with warm encouragement in his proposal for the incorporation of the profession, but which was impracticable at the time. The seed, however, did not fall on stony ground.

The last announcement of the Royal College of Dentists will give but a faint conception of the untiring labor which has

devolved upon a comparatively few men. Seven hundred and seventeen names appear on the list of licentiates, of whom seventy-six are dead. There are in the freshman, junior and senior classes of the school about one hundred and sixty students, with the live certainty that with the more attractive facilities of the college a large increase will be made. The work done by the teachers in the past has been creditable in the highest degree. When we compare the opportunities students enjoy in Ontario to-day, with the restrictions and difficulties previous to 1867, it must be recognized that Ontario has little, if anything, left for complaint. In some of the features of practical prosthetics and the treatment of orthodontia, we are not disposed to believe that the best work and results of to-day are superior to those of a quarter of a century. Vulcanite and low fees have brought about some degeneracy in spite of many new-fangled notions, which have not in any instance accomplished any better results than in the olden time. However, every dentist knows what scientific and practical leaps have been made in other directions, towards the conservation of the teeth and the alleviation of pain; yet every one knows, too, that even in these directions hasty generalization and no little humbug have been rife, while in the matter of ethics we are to-day steering towards a dangerous whirlpool, from which only the small minority can hope to escape. Comparatively speaking, dentistry in Ontario, in a practical sense, stands equal to that of any country in the world. Most of the problems have been faced and settled. Those of the present are chiefly ethical. What will those of the future be?

The increase in the number of practitioners has been more than commensurate with the increase or demand of the population. Dr. J. G. Adams, of Toronto, whose philanthropic work among the poor deserves commendation, has convinced his hearers that the teeth of school children, and especially of the poor, are "universally unhealthy and neglected." His appeal is noble and unselfish. But young men do not enter the professions as specialists in philanthropy. While it is true that it falls to the duty of every dentist to do some measure of charitable work, we cannot feel that we have a divine mission to rob Peter to pay Paul, or that it is in the interest of ourselves or our families, that we shall lay up all our treasures where moth doth not corrupt. Landlords and tax collectors do not accept promissory notes of that character. It is but common sense to believe that young men who propose to spend three or four years, and seven or eight hundred dollars, to get a profession, expect to get it back twenty-fold. And, as a rule, they will get it back, by fair means or foul, by ethical in patience, or impatient and impenitent breach of ethics. Teachers may be faithful in preaching and in practice. The

majority of our practitioners abide strictly within the limits of professional ethics, but here and there quite a number have taken fright, like weak minds, and have openly resorted to quack methods of drawing business. Fees have gone down fifty per cent. One departmental store in Toronto is in public competition with the infirmary of the R. C. D. S. for twelve months of the year instead of six. Everywhere men stand dazed at the prospect. Many have lost all the backbone they ever had, and do not use the legitimate means at hand to expose the fraud of the lying advertiser. The public now think that dentistry is not only one of the few most lucrative means of earning an easy living, but that, in the past, its members were a close monopoly of pirates. The quack finds it to his interest to deepen that impression, and he resorts to advertising methods which respectable men cannot imitate. Consequently he has that field largely to himself. Contrasting the present common methods with the very worst of the past, we may augur that of the future. When three years ago we predicted that the departmental stores would add dental as well as drug departments, we were pitied for our folly. The worst has not come, and yet we encourage the over-crowding which has brought about this state of affairs! We regard it as a serious and direct injury to the public whom we serve, and the profession which we should respect.

REVOKE THE DIPLOMAS.

It is perfectly legal, when a man gets a diploma, for the University which gave it to revoke it, and publish the act and the reason for revocation. No respectable college would grant its degree to a man who deliberately sought it for the purposes of fraud and imposture. No respectable faculty would knowingly consent to sign their names to a parchment for a dental pirate. Every college should place conditions of forfeiture before permitting students to sign the register. When proof satisfactory is produced a diploma should be cancelled, the name struck off the register, and the fact published. The idea is not our own. It has often been proposed, and was emphasized by Dr. Stockton at the American Dental Association.

SHORTHAND WRITERS.

We would like to get the names and addresses of dentists in the several provinces of Canada who are able to write shorthand rapidly enough to report the proceedings of meetings.

OVERCROWDED PROFESSIONS.

Even the Church is finding that it has a plethora of pastors. At the Methodist Conference held in Toronto, Mr. J. J. Maclaren, Q.C., gave notice of motion expressing the opinion that the needs of the home work would not likely require, in the near future, the reception of so many candidates for the ministry in that department, and that the Special Committee of the Conference be appointed to consider the question and report, etc.

In the issue of June 13th of Canada's splendid weekly, the *Saturday Night*, of Toronto, the editor, Mr. Sheppard, forcibly shows that we are over-educating our youth, and adds, "We have, at public expense, been making preachers, doctors, lawyers, teachers *for the United States*, of thousands of our best young men. We thoroughly understand that they cannot have a career in Canada under present circumstances. Yet we proceed to educate them at great expense, *in order that they may go abroad.*"

Privately expressed, it is the opinion of the leading teachers of the professions that they are overcrowded, while there is no gainsaying the statement that the splendid higher education of our Canadian universities—than which there is no superior on the continent—has tempted many a young man whom nature meant for a farmer, and who would be all the better farmer if his education had been more directly in the line of his life work. Teachers and professors themselves will admit that the professions are congested; that over-competition has disastrous results; that many of these young men are forced to go out of the Dominion to make a decent living. We cannot conceal these facts from ourselves, and yet, while admitting them, we do our best to increase them! We observe the meanest and most immoral methods used to attract "business," even by members of our body who are not quacks, some of whom, in fact, would infinitely prefer to act ethically, if they could see the way to live in the meantime. To do justice to several who have resorted to quack methods, we must recognize the truth that no man should starve, or make his family suffer out of respect to an ethical code. While we will never yield to the belief that these methods are necessary; and, in fact, while we are convinced that in the long run they do not pay, commercially speaking, it is not surprising that some practitioners think such a belief a fallacy, and in sight of excessive competition, do those unethical things which they should not do. We can keep quacks from getting a license, but it is doubtful if we can keep licentiates from becoming quacks, or using quack methods. When the Queen City of Canada can produce mean commercial

departmental stores, which not only cut into the very life of trade and commerce, one of which has blossomed forth as an open competitor with the cheapest dentistry—such as it may be—in the Dominion, it is suggestive of the results of overcrowding. The poor beggars who lend themselves to that sort of business ought, perhaps, to be pitied. No doubt their services are just what they value them at. The serious question is, Where is this professional degeneracy to stop?

UNREGISTERED ASSISTANTS.

If we should occupy a whole number discussing this question, *pro* and *con*, it would not make legal what is illegal, or *vice versa*. For what special purpose were the Acts of Incorporation framed? In England we have seen that all sorts and conditions of people, druggists, opticians, etc., claimed to have been practising dentistry before the dentist's Act became law. We have disposed forever of all such claimants in Canada; but in every province there are unregistered assistants and proprietors of mechanical laboratories, most of whom commit breaches of the law openly or on the sly. As actions are to be instituted against several of these parties, it is well to remember that the Acts of Incorporation were intended to protect the public from the fractionally qualified dentist as much as from the open quack, as well as the regular licentiates, and within the limits of their indentures, the regularly registered students. All outside the pale of the two latter have no more right to engage in any department or branch of dentistry "for hire, gain or hope of reward," than have jewellers or opticians the right to advertise as dental laboratory "experts." The legal question has nothing whatever to do with the special or general skill a man may possess. There is no longer "free trade" in dental practice in this Dominion. The letter, as well as the spirit of the law is as plain as the noon-day sun. No person who is not a registered member of the dental corporation has a right to practice, "or perform any dental operation upon, or prescribe any dental treatment for any patient, for hire, gain, or hope of reward, whether by way of free salary, rent, percentage of receipts, or in any other form whatever."

It is illegal to employ assistants who are not at least registered students. A case of the kind was recently brought before the courts in Montreal and decided in favor of the Board of Examiners, the offender having practised at the chair. Even attaching a crown or fitting in a set of teeth comes as plainly within the

meaning of the Act as operating. It is proposed to enter several actions to test the legality of the employment of unregistered assistants in any capacity as such whatever. It was never meant to put penalties upon registered students who break the law, and a premium for doing the same thing upon those who are unable to qualify for registration. It is a mockery to suppose that parties who cannot qualify for the registration should have legal or moral rights which registered students, no matter how apt, dare not attempt to enjoy. What would occur if any registered student hung out his shingle, with his name as a "Dental Laboratory" worker? The Board would cancel his indentureship. What right then has even a licentiate to "cover" such practice under the shadow of his own license? If the registered student is under the jurisdiction of the Board by reason of his indenture, the unregistered assistant is still more under the penalty of the law.

If the laboratory mechanic is honest in the pretension that he only works for the dentists, what need has he for flaring public announcements to catch the public eye? He pretends to the profession, whose patronage he seeks, that he does not solicit public patronage. The pretension is not borne out, either to the profession or the public by appearances. No exclusively laboratory-educated mechanic, however skilful, is qualified to judge as to when teeth should be extracted, treated or preserved. His interests are all opposed to any conservative treatment which is not embraced within his very limited specialty. It is, therefore, directly opposed to the public interests which the Boards are in duty bound to protect.

Moreover, there is neither excuse nor need for this state of affairs. We have now in Canada, and are certain always to have, a superabundance of registered students and licentiates who are entitled to whatever privileges or protection the law affords. If any licentiate is so over-run with practice let him give those who are not a share. If his laboratory work exceeds his own ability he can command the assistance of registered students, while there are plenty of young graduates perfectly competent whom he can engage upon reasonable terms. If he is such a "hog" that he wants to grab everything by steering as closely to violation of the law as he dare, then he deserves to be severely dealt with.

It is bad enough to be obliged to witness the congested state of the profession, overcrowded with regularly registered and licensed practitioners, but if they are to have the underhand competition of men who are not able or willing to qualify, yet who take every advantage of flaws in the Acts or supineness of the Boards, then we may waken some morning to find that these people have applied to the Local Legislatures for right to practice dentistry *in their way* without leave or license from the recognized Boards.

A MEAN INSTITUTION.

A certain limited liability company, of Toronto, is one of the meanest monopoly institutions on the continent. It has done much to degrade and distress the business of Toronto and vicinity, and, yearning for new pastures, it has opened "dental parlors," where it has succeeded in getting some mean beggar of a licentiate to make "the \$10.00 sets of teeth, Friday only, for \$5.00," inserting in the public press, with its hodge-podge of millinery and beef-steaks, ladies underwear and shoes, one of the vulgar cuts used by quack dentists to catch the eyes of the reader.

We have been rapped over the knuckles by some of the more zealous friends of dental education, because we predicted some years ago precisely what has happened. We reiterate our belief most emphatically, that there are already more dentists in every part of Canada, than the population demand, and that the certain result of continued over-production must intensify the cheapening and degradation of the profession. Supposing that the professional men, personally, and by whatever influence they may possess, should actively unite to boycott such monopolists, the experiment of making sets of teeth for five dollars might cease. But if they condemn people who go there to save a few dollars in dentistry, and then go there themselves to save a few cents on carpets or roast beef, they deserve to suffer for their inconsistency. Toronto is the Queen City of Canada. But a monopolist seems bigger than Toronto.

STEALING OVER THE FENCE.

The majority of dental students, as a rule, are earnest and honest in their efforts to obtain an education. There are, however, to be found a number who care less for the education than for the license, and who will resort to any possible scheme or subterfuge to gain the latter. We are aware of several suggestions made to students, by which they are led to believe that there are easier methods of getting a license than by the usual appearance before the Boards of Examiners. These suggestions have a show of ingenuity to inexperienced minds. We assure anyone concerned in their manufacture that they are as stupid as they will be futile. The Local Legislatures have done with the business of making dentists by Act of Parliament. No better reason could be given for rejecting a candidate than the fact that he was so conscious of his inability that he feared to face the ordeal of an examination. Students who try to steal over the fence will find it an unprofitable venture.

"IT DOES NOT PAY."

The "Almighty dollar" is the divinity of the quack dentist. It is also that of the impatient man who is not a quack, but who uses quack methods to make a dollar, and who gets into such a degenerate moral condition that he would die if he would be decent. There are men practising dentistry in Toronto, Montreal and smaller places, who care no more for the respect of their *confreres*, or the special esteem of the honorable part of the public than for the confidence of a cat. They will eat dirt to make a dollar. They will lie by the column in print, or by the hour in public. They have no sense of shame in the fact that their *confreres* know they lie. Lying has become as "legitimate" a part of their practice as it is of the departmental stores. It is as much a disease as kleptomania or alcoholism. And yet, apart from the social and professional contempt which surely follows, it does not pay financially. It costs a lot of money to lie in the advertising columns of a newspaper, and the people will never run after bargains in teeth as they tear each other to pieces for bargains in boots. A shop-keeper can, for a long time, attract and deceive the public by bargains in goods which any boy clerk can sell, but the public will not long be imposed upon by dentists who hand over their cheap work to assistants and students; and who, if they do give their personal attention, cannot give sufficient of it to fully satisfy their patients. The "hog" dentist who wants fifty patients a day in his office is invariably an impostor. It may appear to pay, this eagerness for monopoly, and this sensational advertising, but it pays so poorly that these people are rarely able to pay their debts. Look at their record, morally and financially, and show us one case where it pays. There are people who deny that honesty is the best policy, though they may admit it is, perhaps, the best principle. When they discover that honesty is the best policy they make more capital out of their great hypocrisy than they ever made out of their little honesty. To give the devil his due, they become honest—because it pays.

Emphatically, quack advertising and depreciation of one's *confreres* does not pay. It is immoral. *There is no money in it!*

TURN PAGE 205 OVER.

In the last issue the printer got an advertisement where the last page of editorial matter should have been (page 205). By turning over the advertisement the apparently missing material will be found. The arrangement can be altered by cutting out the page and reversing it.

A WARNING TO MANUFACTURERS.

The editor of this Journal feels it a duty he owes to legitimate and well-known manufacturers and dealers in dental goods to put them on their guard against parties seeking large credit upon the pretence of opening depots. There are honorable exceptions to every rule, but it has always been our conviction that manufacturers should not encourage indiscriminately so-called dental depots, kept by practising dentists. There are enough legitimate dealers with whom business can be done. Some of these people who have been repeatedly refused credit to the extent of twenty-five dollars in Canada have the cheek to ask for as many hundreds in the United States and England ; and the devices to which they resort to throw dust in the eyes of the manufacturers are as ingenious as they are fraudulent. One serious objection made by the profession, generally, to depots kept by practising dentists is, that patients going to some of them have been told, "We have the largest stock in the country. All the other dentists depend upon us for their teeth, and of course *we keep the best and the pick for our own patients.*" We repeat, there are honorable exceptions, but if it is legitimate for one practising dentist it is for every one.

FACILIS DESCENSUS AVERNI.

When a "moderate" drinker finds he is not ashamed to be seen intoxicated in the streets, he ought in his sober moments to reflect that he is fast becoming an irresponsible drunkard. When the man who has been tempted to steal a dollar finds he is planning to steal a hundred, he ought to remember that he is becoming an incorrigible thief. When a dentist who has imitated the quack in his methods of advertising discovers that he is humbugging and lying in the public press, he ought to know, that the harvest he will reap will be the contempt of his *confreres*, and the inevitable distrust of the public.

DR. J. ED. LINE.

Just as we were correcting the proofs of this number our old-young friend, Dr. J. Ed. Line, of Rochester, N.Y., editor of the *Odontographic Journal*, walked into the office on a short holiday tour, accompanied by his better-half. The doctor is socially such a good fellow that the rest of us may envy his wife who has him for her life companion. Professionally, his worth, like a multi-millionaire's wealth, is too well known to need emphasis.

CHICAGO QUACKS AHEAD OF CANADIANS.

Our Canadian quacks and cheap dentists are not in the swim with the birds of a feather in Chicago. Several of the "parlor" fakers who, like some of our own, would be more at home running a gambling den or a saloon, are advertising in the Chicago papers as follows: "Full set of teeth \$2.00. In order to increase our clinic we want every man, woman and child in Chicago to have their mouths examined by the professors of this college. All your work will be done free until August 22. Teeth extracted without pain; teeth cleaned; silver fillings, soft fillings free! Easy payment plan. Union College of Painless Dentistry. Best equipped college in the world. Open nights and Sundays." "Parlors" are not in it with "college," you know.

SENSATIONAL ADVERTISING.

[We think it only fair to give the quacks and those who say they are not quacks, but who cannot say that they do not use quack methods, the benefit of some suggestions sent us, about advertising. We will be glad to receive any other suggestions.—E.D. D. D. J.]

The following additions may be useful:

Give us some credit for being ashamed to put our names to our grand Combine!

We do not glory in our shame. But we must get the dollars, and decency and honesty may be dam-aged if they get in the way!

You can kick us for ten cents a kick. It frequently relieves tooth-ache by reflex-action!

Wanted! 500,000 old teeth! Fresh cargo in next week from Armenia.

You don't have to wait. You can take your pick of a set of teeth ready-made off the clothes line. You can wear them and change them until you're satisfied.

— You can talk three languages with our teeth all at once, and have time left.

You can wear our sets a year and sell them second-hand for more than they cost.

They "bite" so well you can use them for fishing.

Our sets float! You can bathe with them.

We make second-hand sets to fit as good as new in one hour, and no one would ever know you were wearing your "Uncle's."

With our X rays you can get out of your skin in hot weather, hang it over a chair, and get your teeth filled and your bones polished painlessly.

We have no Peers; we are Original; we will instruct lesser lights in our unique systems.

After Nature made us she broke the model. Jealous rivals say it was because she was so disgusted. We say it was because she was mad that she surpassed herself!

It was one of our family who built the Pyramids.

We made the crown jewels!

Electric lights inserted in front teeth. You have only to open your mouth to throw light on any subject.

We discovered the world.

We wrote Shakespeare's plays.

We composed the Ten Commandments, and we monopolize the right to break them.

Post-Card Dots.

Where and when was the term "gangrene" proposed instead of caries? By Thos. Bell, F.R.S., Lecturer on the Anatomy and Diseases of the Teeth at Guy's Hospital, in his work on "The Anatomy, Physiology and Diseases of the Teeth."

How early are the rudiments of the teeth observed? About the sixth week of foetal life, when the embryo weighs but fifteen grains, and is about three-fourths of an inch long. The two tubercles of the mandible are found when the embryo is about eighteen days "old," and is about half an inch long.

When was dissection interdicted as sacrilege? By Boniface VIII.

How can I clean my files used for rubber work? Hold them in the jet of steam which escapes from the tap of your vulcanizer when the pressure is above fifty pounds.

What are the salaries paid to the staff of the Dental College of the Province of Quebec? In United States slang—NIX. They enjoy, too, the privilege of paying the expenses of most of their own supplies for lectures.

Please recall the opposition of the clergy to the use of chloroform in 1847. *Ans.*—Sir James Simpson's discovery was denounced as impious, and contrary to holy writ. It was said that its use was "to avoid one part of the primeval curse on woman." Replying to his theological opponents, Sir James said, "They forget the 21st verse of Genesis ii. That is the record of the first surgical operation ever performed, and that text proves that the Maker of the universe before He took the rib from Adam's side for the creation of Eve, caused a deep sleep to fall upon Adam."

How is Wood's fusible metal made? Bismuth 15 parts, lead 8, tin 4, cadmium 3.

Who introduced tooth picks? Probably Adam. They were commonly used in the time of the Cæsars. Martial thus ridicules an old fop who, though he had not a tooth in his head, used one.

Ad Esculanum.

Medis recumbit imus ille qui lecto,
Calvam trifilem semitactus unguento,
Foditque tonsis ora laxa lentiscis ;
Mentitur, Esculane :—non habet dentes.

When and where was the first regular dental infirmary for the poor opened in Canada? In Toronto in December, 1869, in connection with R. C. D. S., Ont.

Have any Canadian dentists been in Parliament? The late Hon. Dr. Baillargeon, of Quebec, was in the Ottawa Senate; the late Dr. A. Bernard, first President of the Dental Association of Quebec, sat for a constituency in the Local Legislature. He was also Mayor of Montreal.

1. Why is French so severe and imperative in the matriculation examination for license to practice in Quebec Province? 2. Can one attend the college without matriculation, and get credit for the time passed if he desires to graduate elsewhere? *Ans.*—1. Because French is as much a legal language of the province as English, and Quebecers legislate in the interests of Quebec first, and of the rest of the world afterwards. 2. Yes. We believe this is common in all colleges in Canada, though in order to obtain Canadian degrees the regular matriculation must be passed and registration obtained.

Is it premature to invest in the apparatus used in cataphoresis? Not if you have money to burn, or if you are fond of experimenting. At present no apparatus is satisfactory, but there is every certainty that an effectual and cheap improvement will soon be in the market.

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Original Communications

CATAPHORESIS IN DENTISTRY.*

By GEO. K. THOMSON, D.D.S., Yarmouth, N. S.

I read several articles on "Cataphoresis," in which I immediately became deeply interested, and concluded to obtain a cataphoric battery as soon as possible. I then thought that as it was a subject which was proving generally interesting to the profession the world over, perhaps it would be interesting to our society to listen to a short paper and experience of one of ourselves with it. I hope, therefore, that although the contents of my paper may not be new to us all, it may help to bring this method of rendering our dental operations painless more directly before the profession in Nova Scotia than it has yet been brought. The derivation and meaning of the word cataphoresis will perhaps be first in order. It is derived from the Greek "cata," downwards, and "phoresis" from "phorein," meaning to trend, bear, travel, *i.e.*, "to travel downwards"—downwards, because electricians of old supposed the current always travelled downwards from positive to negative pole, as in electroplating. Subsequently the term has been used to express the more special application of the phenomena to tissue. Cataphoresis, then, is the flow of fluids with the currents from the positive to negative pole. As used in dentistry, it means the flow of fluids, containing in solution medicines in the shape of obtundents or analgesics, antiseptics and disinfectants, from the positive to negative pole, through tooth tissue, which may be very sensitive, which we wish to obtund or bleach—the cementum of the root, which must be thoroughly disinfected in treatment, or

* Read at Dental Association of Nova Scotia, August 26.

the germs and alveolar process surrounding the teeth to be extracted.

It is not by any means a new discovery, for it has been known and practised for more than a generation, but some difficulties which presented themselves to the first users of cataphoric medication have been overcome within the last few years, and it is now being adopted by those surgeons and dentists who have the welfare and comfort of their patients at heart, and who strive for the true advancement of their profession.

According to Professor Morton, in *Cosmos*, of May, 1896, the principle of cataphoresis was known as early as 1833, when iodine was introduced into the tissue of a Frenchman; but as far as is known Dr. W. B. W. Richardson made the first important investigations in this direction in 1859, since which time until 1886 no record of any work along these lines has been discovered. For the history of Dr. Richardson's experiment I would refer you to the *Dental Cosmos*, of August, page 703.

In 1886 Prof. Wm. J. Morton, of New York, experimented successfully with cocaine cataphoresis, but Dr. Henry W. Gillette, of Newport, has done the most important original work as applied to dentistry.

The latter, in a paper read before the American Dental Association, in August, 1895, stated, "It has enabled me to say to my patients that I can prevent all pain in preparing sensitive cavities," and at the present date it is possible with the improved apparatus to perform all dental operations painlessly except extraction, and in regard to the latter the experiments so far lead us to believe that it will soon be included in the list of painless operations performed by means of cataphoresis. To those of us who are not familiar with electrical terms I would here give a few definitions of those used in speaking of the operation: A volt is such a unit of electro-motive force as will produce a current of one ampere in a circuit whose electrical resistance is one ohm. An ohm is such a unit of electrical resistance as will limit a flow of electricity to a current of one ampere when under an electro-motive force of one volt. An ampere is the rate of flow of current which will pass through a circuit, the resistance of which is one ohm under an electro-motive force of one volt. A milli-ampere is 1-1000 of an ampere.

For a successful operation on sensitive dentine it is rarely necessary to use more than from one-fifth to three-fifths of a milliampere, and the current is generally felt by the patient when the milli-ampere metre registers one-tenth. In the few cases in which I have performed cataphoresis my patients have been pleasantly surprised at the results in the excavation of most sensitive cavities. From a record which I keep, I quote the following cases:

Mrs. C. J.—Cavity on posterior surface of first right upper bicuspid—sensitive to heat, cold and touch—applied guaiacocaine (Morton) with current of 1-10 ma.—not unpleasant—gradually increased to 2-5 ma. Total time of application fifteen minutes. No unpleasant sensation on preparing cavity.

Miss D.—Treatment of lateral incisor root, preparatory to crowning. Had abscessed several times, and was in very bad condition; applied current of 3-5 ma. for ten minutes with pyrozone for half the time, and euthymol the remainder. Did not have to treat again, and put Logan crown on a few days afterwards.

Mr. G.—Bleaching right central. Prepared twenty-five per cent. aqueous solution of pyrozone, as suggested by Professor Morton. Applied current of 1-1.5 ma. for fifteen minutes. Operation not as successful as I expected, but made tooth much lighter.

Miss B.—Nerve extraction. First right upper bicuspid; exposed pulp, and painful on the slightest pressure. Applied fifteen per cent. solution of cocaine in electrozone for thirty minutes as follows: 1-10 ma. in five minutes, gradually raised to 1-5, in three minutes more to 2-5, another 1-5 in five minutes; another 1-5 in one minute. In twenty minutes meter registered 4-5; gradually raised it 1-5 more in five minutes, making a current of 1 ma. in thirty-five minutes. At thirty minutes removed current, opened up canals, removed nerve. The only pain noticed by patient was when disconnecting the nerve. Operation very satisfactory to both patient and myself.

Mrs. O.—Cavity on cervical margin of lateral incisor; exceedingly sensitive. Applied cocaine, fifteen per cent. solution, in electrozone for fifteen minutes. Cavity quite sensitive in making retaining grooves, but patient felt that she could not have endured operation without cataphoresis.

I notice that Dr. Carleton Brown, of Elizabeth, New Jersey, at the New Jersey Dental Association, stated that he had succeeded in materially reducing the time required for analgesia, but I have not as yet made any progress in that direction. I have no doubt, though, that it takes much longer to produce analgesia in dense and sensitive dentine than in that less so. Dr. Brown stated that he used a fifteen per cent. solution of cocaine in electrozone, and had anæsthetized a cavity in one minute and a half.

Now, Mr. President and gentlemen, I am not here this evening to advocate any special cataphoric apparatus or electrodes. I simply relate to you my short experience with the operation. Since Dr. Gillette's first experiments with cataphoresis, the batteries and electrodes have been much improved. Dr. Peter Brown, of Montreal, has been working in this direction, and very kindly sent me some photos of clamp electrodes he has introduced. There is

no doubt in my mind that cataphoresis is destined to work a revolution in the practice of dentistry, and I am sure we will all welcome any discovery which will make the operations we perform comfortable to our patients as well as to ourselves.

CATAPHORESIS.*

By DR. CYRUS A. ALLEN, Buffalo.

In the hurry and push of a daily practice, large as I know we all possess, it is difficult to introduce radical changes in methods. This I believe to be particularly true when it comes to the acceptance or even consideration of methods savoring of the "painless" character. However, the busy man must not forget that science progresses and must be considered, and that all who would "be in at the finish" must conform themselves to its changing conditions. This declaration should not be construed in any manner as urging the endorsement of every new claimant. I think you will agree with me that even in our noble profession there are often pretensions to truth and fact which experience never can verify. However, failure along lines of declared truth should not close our eyes to the possibilities of advancement.

Ever since my earliest recollections I have been accustomed to the atmosphere of dental operations, and I must confess, with all courtesy to my good father, who was a pioneer in our art, and who was always *inter primos* in his life-work, that those early memories were not of the nature to make a boy respect his father. However, as time has gone on, we realize that he was even of the first, and that the professional crudities then extant were largely responsible for the degree of respect in which our art was held in that early day.

The general public has so loved the results of our labors, no matter by what discomforts received, that to-day we have in America alone about 25,000 dentists, with more to follow, judging from the liberal inducements offered by colleges to possible students in this field. But with advances made in other scientific and professional fields in recent years there has come a popular demand for "painless dentistry," which to most of us is a synonym for quackery—something alluring to the public. For the benefit of humanity and the good name of our profession, I would that the adjective "painless" had been omitted from our language. However, its existence and disgraceful application may have been in

* Read at joint meeting of Buffalo and Toronto Dental Societies, Niagara-on-the-Lake, July 18, 1896.

some small measure of use to our profession ; for if its profligate use, employed to bunco the public, has awakened us, then is it an instrument of good.

An era of quackery and charlatanism has been abroad among us ; ignorance and cupidity, with their train of misapplied energies, have produced results dangerous and often fatal to a public ever ready to try some "new thing." The fatal, to say nothing of harmful results following the injections of various secret preparations for painless operations, compel the conservative mind to hesitate when any new scheme is presented to alleviate human suffering. However, I believe from my own experience, added to the clinical demonstrations of trusted friends, that cataphoresis opens a field wide and useful in dentistry, and absolutely free from the lurking dangers which always accompany the use of unknown and secret preparations.

Let us consider some of the more conspicuous designations for cataphoric treatment in our special field : (1) Its employment in sterilizing medications in roots, etc. (2) Arresting abscesses, incipient or otherwise, by the iodine treatment. (3) For obtunding sensibility previous to the lancing of abscess after pus formation. (4) For the treatment of pyorrhœa alveolaris. (5) For the treatment of acute pericementitis. From my own clinical experience the application of this treatment has a wide, and at present little understood usefulness. (6) For bleaching of discolored teeth. (7) For the obtunding of sensitive dentine preparatory to the insertion of fillings, an application which at once appeals to all practising dentists. (8) For the preparation of teeth and roots for crown adjustment—another wide field of usefulness. (9) For the immediate extirpation of inflamed, congested and diseased pulps. (10) And others without number, according to the development of future experience.

May it not be well here to define cataphoresis? This modern term comes from the two Greek words, "cata" and "phorein"—"cata" with its signification, downward, and "phorein," to bear, to travel. Collectively, then, these two words would mean in general application, "travelling downward." But in its application as we are employing it to-day, why should we say downward and not upward? This may be explained from the fact that the older electricians possessed themselves of the idea that there was a positive potential which was always upward, and a negative which was always downward.

The term "cataphoresis" was used later on to express the more special application of the phenomena to tissue. We may then abruptly define cataphoresis as "flow of fluids from the positive to the negative pole." If this be true you will readily agree with me that if these fluids should contain elements in solution which

would make them medicines, these medicines must flow from the positive to the negative conveyed by the current; and that if you make application to the one tissue by the positive pole and any remote part by the negative, and this solution should have a tendency to flow with the current, then these medicines will travel in that direction.

To what extent then do remedies under this influence travel? This is a matter which must be left largely to future demonstration. So far as I am personally concerned, I know absolutely nothing in regard to it of a definite character. Some good authorities, however, claim that if you apply to one side of elevated tissue (as the alveolus) the negative pole, and to the other the positive pole, loaded with a solution of cocaine, the anæsthetic effect will only reach half-way through that tissue. More than this, that the remaining half will not only not be influenced by the cocaine, but will also be rather increased in hypersensitiveness.

It will be well here to discuss somewhat the mechanism of the apparatus, for, simple as it is, you should have some definite knowledge of its operation. I will call your attention to (1) The voltage which concisely represents the pressure of the current, as indicated by the numbered attachments. May increase at pleasure. (2) The milliamperage dial records simply the flow of the current through the tissue. A mechanism attached to the apparatus, which is designated as the current controller, is intended simply to furnish in the smallest quantities further pressure upon the tissue as may be suggested by the case in hand.

We now come to the question of current strength which may be required. My clinical experience seems to suggest that a large voltage is not at all necessary in securing the desired results. Indeed, so firm am I in this conviction, that I boldly assert that from one-half to one and a half milliamperage registrations will be sufficient to anæsthetize perfectly almost every case which may present itself. Another very important reason why a low voltage should be applied is for the comfort of our patients, which we should under no circumstances lose sight of.

Another very important element in the success of this method consists in the *uniform* and *continuous constancy* of current application. If the current be spasmodic, interrupted or unreliable in any degree, it will not only impair the results sought, but will also seriously disturb the comfort of the patient. There is nothing which so quickly develops remonstrance from the one operated upon as an interrupted current or the sudden elevation from a low to a high voltage. To this general rule, emphatic as I would make it, there are some exceptions which do not figure in the general summing up. The importance of continuous application of current should be borne in mind even to the end, that when a renewed

application of the anæsthetic solution is desired, no disconnection should take place, but rather that the solution should be added with appliances *in situ*, in order to avoid the disagreeableness of a broken current and its reapplication.

We have indefinitely referred to solutions and anæsthesia in general without any special reference to what these solutions should contain. I would lay it down as an emphatic law of necessity that all cocaine solutions should be prepared for each individual case, for the reason simply that with certain atmospheric conditions only a few hours may suffice to absolutely destroy their efficacy. The leading chemical laboratories of the country prepare in tablet form many of the remedies used by us in such attenuated quantities that the most bland solution may be prepared by even the novice, simply by reading the directions on the preparation. A method employed by me for cocaine anæsthesia is to place upon the marble slab a small quantity of the pulverized crystal which may be readily picked up by a piece of cotton of the proper size well moistened, and then carried directly to the cavity. The previous moistening of the cotton will furnish a sufficient medium for the conduction of the current, together with the alkaloid, to the place desired.

Some days since, in the use of this agent, I added a mild solution of chloride of sodium, or common salt, upon a suggestion which I received from a recent publication. The result in this case, which was a badly inflamed pulp aching continuously for the past eight hours, was most happy, as the current contact continued only for nine minutes, which produced a condition whereby I was allowed to remove the thin lamina of dentine overlaying the pulp, and immediately thereafter proceeding to the successful removal of the pulp itself with scarcely any pain to the patient. This case, I learn from my record book, gave me the quickest and happiest result which I have enjoyed since employing this method. Whether the result was directly dependent upon the addition of the salt solution I am unable to state, but am inclined to the belief that a cocaine solution is not altogether a perfect conductor of the electrical fluid, and if this be so it suggests to us very forcibly that there should be always an addition made to our solutions which will render them perfect conductors.

In regard to the application, it may be briefly stated that the positive pole, which is indicated by the star upon the apparatus, should always be applied directly to the tissue upon which the operation is to be performed. The application of the electrode may be either upon the same or the opposite side of the anatomy, and from my own clinical experience there seems to be no preference in the matter, although it has been authoritatively published that the applications of the positive and the negative should be

upon opposite sides. The manner of application to any given cavity will be suggested by the ingenuity of the operator himself, only bear in mind that he shall have perfect contact with the solution contained in the cavity of the tooth. The varying cases which may present themselves will suggest differently shaped appliances, which may be made upon a moment's notice with pliers and wire of suitable gauge.

Anæsthetizing the soft tissue upon any part of the anatomy may be readily accomplished by the application of the agent, held firmly in position by the cup-shaped device furnished by the manufacturer, or any which you yourself may prepare. It is hardly necessary to go minutely into the details of each case, but rather is it better that these minor affairs should be left entirely to your own judgment.

While I regard this new method in our hands as a means of ameliorating human suffering and thereby tending greatly toward the removal from our profession of many traditions of horror, I would urge a word of warning against its unintelligent use. This warning word is particularly directed toward those of limited experience in the treatment of certain lesions of the teeth. Labial and buccal cavities are here our greatest concern. With absolute immunity from pain in an extensive labial cavity, I fear that the unwary or inexperienced may bring this good device into discredit by the wholesale destruction of pulps by virtue of too free removal of tissue and placing a filling of perfect conductivity in dangerous proximity to these organs.

Toxic results I know not of. Intercourse with my professional friends, and reports in our dental journals, relate no fatalities from this new departure. Nor do I learn from friends or from my own clinical experience that there is even the slightest systemic disturbance such as might be expected upon liberal cocaine absorption. Whether this agent enters into the tissue only in a circumscribed area, or whether its absorption systematically is prevented through some subtle influence of the electrical fluid, I am wholly unprepared to state. But the fact remains that I have yet to observe any systemic derangement from my own experience.

It may be asked if we claim perfect results from cataphoric treatment in all instances. By no means; on the contrary, my case book presents a total of widely varying results all the way from absolute failure to the most exalted success. In a careful study of these records I do not find any suggestion that individual temperament has been a dominating influence. This observation, I believe, will hold good only so far as it does not include those magnified extremes where Nature seems almost to present anomalous conditions. Magnified temperaments frequently furnish peculiar clinical phenomena, often erratic and even ungovernable

by the usual methods. We all are aware that individuals vary greatly in their physical capacity for the electric current, while outwardly there may be no manifest difference in temperament; therefore, we may conclude that the individual nervous organization, with its capacity to repel or welcome the medicated current, will largely determine the clinical results. For it must be constantly borne in mind that anæsthesia can only be produced after and by the influence of the current's passage through the tissue, accompanied by the proper agent. The simple application of the current and agent to the desired parts can avail nothing in themselves. The current and agent must absolutely pass through the tissue. When this takes place, even to the minute extent of a fractional mill, the dial will indicate the fact. Ordinarily the deflection of the needle will be immediate, but not always, for if the case in hand be one that so curiously repels the electrical fluid—through some unknown constitution of its own—then we may expect no movement of the needle. I find these cases the most difficult to anæsthetize, having consumed one hour and forty-five minutes in one instance in the removal of a pulp. The happiest result which I have recorded was complete anæsthesia of a pulp in seven and a half minutes, the period of application being usually ten to fifteen minutes in my experience—the time required for the relief of cavity sensitiveness being on an average about half that required for the pulp, and in some instances much less.

Much of the true science of this wonderful and humane treatment we have yet to learn. Serious and even discrediting results may develop, but at present we can with conscience recommend cataphoresis in your daily labors.

Proceedings of Dental Societies.

ONTARIO DENTAL SOCIETY.

The eighth annual meeting of the Ontario Dental Society will be held in the new College building, No. 9 Avenue Street, Toronto, on September 30th and October 1st and 2nd, 1896.

Ontario Dental Society officers, 1896: President, Dr. W. A. Leggo, Ottawa; Vice-President, Dr. W. A. Brownlee, Mount Forest; Treasurer, Dr. C. P. Lennox, Toronto; Secretary, Dr. J. A. Marshall, Belleville. Executive: Drs. W. A. Leggo, W. A. Brownlee, C. P. Lennox, J. B. Willmott, R. J. Husband, A. M. Clark, H. S. Wood, G. E. Hanna, J. A. Smith, J. A. Marshall.

DEAR SIR,—With unusual pleasure we forward you the programme of the eighth annual meeting of the Ontario Dental

Society, and extend to you a most cordial invitation to be present. The Committee has made great efforts to provide an interesting "Bill of Fare," and anticipate an enthusiastic and profitable meeting.

The interest of the occasion will be enhanced by the proceedings in connection with the formal opening of the new College building, the Lieutenant-Governor having been invited to perform the ceremony.

At an early date you will receive from the Directors of the R. C. D. S. an official invitation to be present.

We have only to add that the ladies of your families will be heartily welcomed to these meetings.

Purchase first-class single fare tickets and secure a certificate with each ticket, as arrangements have been made with the Grand Trunk and Canadian Pacific railways for reduced return fares.

J. A. MARSHALL, D.D.S., *Secretary*.

Belleville, September 1st, 1896.

PROGRAMME.

Wednesday, September 30th.

2 P.M.—Reading minutes of last meeting ; Unfinished business ; Enrolling members and payment of fees ; Reports ; Election of officers ; New business.

8 P.M.—Paper, "Porcelain Work," Dr. J. F. Ross, Toronto ; discussion opened by Dr. C. P. Lennox, Toronto. Paper, "The Dental Preceptor," Dr. Sparks, Kingston ; discussion opened by Dr. Moyer, Galt. Question, "Are compound fillings desirable ? If so, give proper combinations and the utility ;" answers by Dr. R. J. Morrow (Peterboro'), Dr. W. A. Leggo (Ottawa), Dr. Moyer (Galt).

Thursday, October 1st.

9 A.M.—Paper, "Cataphoresis," Dr. Waldron, Toronto ; demonstrated clinically by Dr. Swann, Toronto ; discussion opened by Dr. J. F. Brown (Port Hope). Paper, "Review," Dr. Relyea, Oswego. Question, "Why do amalgam fillings so frequently fail ?" answers by Dr. O. A. Marshall (Picton), Dr. G. E. Hanna (Ottawa), Dr. G. S. Martin (Toronto Junction).

3.30 P.M.—Opening of the new College building. Programmes will be issued in a few days by the Secretary of the R. C. D. S.

8 P.M.—Retiring President's address. Paper, "The Common Sense of Hypnosis," Dr. Thomas Fillebrown, Harvard Dental School, Boston, Mass., with clinic ; discussion opened by Dr. J. B. Willmott, Toronto. Paper, "Fermentation and its relation to dental caries," Prof. J. J. Mackenzie, Toronto ; discussion opened by Prof. Teskey, Toronto.

Friday, October 2nd.

9 A.M.—Paper, "Silver nitrate," Dr. Baird, Uxbridge; discussion opened by Dr. Klotz, St. Catharines. Incidents of office practice, "Anchylosis of Maxillas," Dr. Adams, Whitby. Question, "Is pulp capping advisable? If so, what conditions must be observed to justify the operation?" answers by Dr. W. E. Willmott (Toronto), Dr. C. E. Klotz (St. Catharines), Dr. A. H. Allen (Paisley).

DENTAL ASSOCIATION OF NOVA SCOTIA.

The sixth annual meeting of the Dental Association of Nova Scotia was held in New Glasgow, N.S., on August 26th and 27th. From the first session to the last the interest continued to grow, and it proved to be most profitable and instructive.

Dr. Blackstone, of Manchester, N.H., and Dr. Belyea, of Brookline, Mass., held clinics of great interest—the former illustrating the possibilities of certain kinds of gold cylinders in contour work; the latter, on quick setting of Logan and Richmond crowns.

Mr. Towne, of the S. S. White Dental Manufacturing Company, also gave illustrations of some interesting phenomena in hypnotism.

Dr. Webster, of Pictou, and Dr. G. K. Thomson, of Yarmouth, gave thoughtful papers.

Excursions to the Albion Coal Mines, Trenton Steel Works, and moonlight sail to Pictou through a most picturesque section of Nova Scotia, made up part of the programme.

The meeting will be held next year in Wolfville, the centre of Evangeline's Land in "Old Acadia."

Clinic performed before the Nova Scotia Dental Association on August 27th by Dr. G. K. Thomson, of Yarmouth: Patient, Dr. J. A. Johnson. Approximate cavities in upper right canine and lateral incisor; decay extended to margin of the gum and the nerve nearly exposed in both and exceedingly sensitive. Applied 16 per cent. solution of electrozone and cocaine; current of cathodic battery applied and gradually raised in fifteen minutes from one-tenth to one milliamperé; the current was then removed. No pain was experienced from excavating, and no response from cold air syringe. During the operation no unpleasant sensations were experienced.

THE responsibility resting upon the teaching and clinical staff of a dental college is very great; the duties are severe, and demand many personal and financial sacrifices.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

DR. H. H. SULLIVAN uses ordinary corks as handles for bench files. They are light and answer all purposes.—*Items of Interest.*

The Stomatological Gazette reports that Dr. Clyde Payne gave to the Stomatological Club of California, formula for a fusible metal for die and counter die: Tin, 4 parts; lead, 3 parts; bismuth, 15 parts; cadmium, 3 parts. Fusible at 150° F.

INVESTING.—Mr. Girdler uses the dust of burnt anthracite coal instead of sand or asbestos, in conjunction with plaster, for investing cases for soldering, and claims that the plaster does not crack so readily on the application of heat.—*Ash's Quarterly Circular.*

LIQUID SILEX.—The solution known by this name, or a soluble glass, chemically the sodium silicate, (Na_2SiO_3) is quite as effective a medium to prevent the adhesion of plaster to vulcanite as is tin foil, but certain precautions are necessary to procure the best results. The material should be kept in a moderately warm place and tightly stoppered. As soon as its viscosity becomes greater than a thin syrup, throw it away and buy a new bottle. Should it lose its perfect clearness discard it. The writer finds that about one-third of the four-ounce bottles in which it is sold is useful, the remainder is usually so deteriorated as to be worthless. Dilution with hot water and warming the solution restores its appearance; but, for dental purposes, not its virtues. The model, after investment, and also the teeth and entire investment, are freed of adherent wax by pouring over them a stream of boiling water. The excess of water is absorbed by means of bibulous paper. As soon as the wet appearance disappears from the plaster, it is ready to receive the silicate, not before.—*Ohio Dental Journal.*

REMOVABLE PORCELAINS FOR CROWN AND BRIDGE WORK.—Dr. W. S. Mason, Red Bank, N.J., has invented a system of detachable porcelain facings to be used in crown and bridge work. A metal dovetail on the back of the facing fits accurately in a groove in the backing, and when ready to insert in the mouth the groove is filled with chloro-percha and the facing pressed to place and finished off carefully. Dr. Mason enumerates the advantages of his plan, thus: (1) You do not have to place your tooth under the flame of the blow-pipe. (2) You have a solid

backing without bubbles, as all parts are drop forged. (3) You can heat up and cool off investment quickly. (4) Small amount of solder used—just enough to join the parts together. (5) Saving your porcelain from being etched by borax. (6) You are able to fit a bridge, releasing the strain by cutting and resoldering, and not have the porcelain interfered with. (7) The time saved in making bridge over the old method, and the freedom from the annoyance of having to spend half-a-day trying to repair a break. With this system the making of a repair is only a matter of a few minutes. If you put a tooth of mold 22 on and it should break, you may order an exact duplicate and slip it in position, keeping yourself in good humor and giving your patient the greatest amount of satisfaction.—*Abstract of article in Dental Cosmos.*

METAL DIES DIRECT FROM IMPRESSION.—Dr. E. I. Woodbury, *Dental Cosmos*, has a method of making dies in metal direct from the impression. The material for the impression is fine clay or a clay compound, with an equal part of plaster, which is the aluminous compound he uses. It will not shrink or expand, and is also a good investment for soldering. He uses a perforated tray, made in parts composed of an alloy of two per cent. copper with aluminum. This will stand the heat of the temperature at which the metal is poured. It is perforated for drying and permitting the escape of steam. Any die metal may be used, but the Doctor prefers Pastel's Babbitt metal. The metal is poured in a semiplastic condition and tamped in the mold to avoid the spheroiding involved in the old procedure, when the metal had to be poured very hot. The nearer we come to the mouth the better will be the result. In the old process of sand molding there were several transfers, and each step involved changes and defects. In this process there are but two changes—the impression, and the pouring and pressing down of the molten metal. Lead and tin are used for the counter die. The flasks are made in three parts. The impression is held in the lower part, filling in around it with the investment compound. The middle part of the flask is made to hold the metal. The impression is trimmed to relieve pressure in the proper places, as the metal model cannot be trimmed afterward. After drying and heating the investment portion, the Babbitt metal is melted to mere fluidity, then stirred to make it plastic, poured into the impression and tamped down well to make it fill all portions well, and prevent spheroiding. It is cooled in water. Dry it well and smoke to prevent adhesion, and pour the counter die metal. There are four special advantages: (1) The short time required to make a die; (2) The low temperature at which the metal can be poured; (3) All irregularities can be taken sharply; (4) The ease of the process by which even a novice can get good results at once.

Selections.

A PLEA FOR CONSERVATIVE ORAL SURGERY, WITH PRACTICAL ILLUSTRATIONS.*

By G. LENOX CURTIS, M.D., New York City.

There is, perhaps, no other department of surgical practice in which the general surgeon, trained in the medical schools alone, is so deficient as in oral surgery. He clings to the ways of the ancients, and makes no effort to improve his methods in oral and facial surgery. The fault is not so much his as it is that of the system under which he was educated. For, notwithstanding all that has been demonstrated by Profs. Garretson and Tomes, the medical colleges persist in declining to annex to their curricula the special line of work regarding the facial region which would seem to be of paramount importance, in view of the æsthetic factor involved.

The medical student of to-day receives no training in oral and facial surgery; so that the general surgeon may be excused for not practising that which he has not been taught. Even our modern text-books contain many of the identical illustrations and much of the advice upon this topic which were published in the "forties." The surgeon trained under such auspices must, in order to advance in oral surgery, create, by his own observation and skill, better methods. To such a one, the Langenbeck operation, the opening through the face for the resection of the jaw, for the removal of tumors and necrosis, trephining below the eye to gain access to the antrum of Highmore, the resection of nerves by cutting through the face, may seem justifiable. But to the man who has seen such operations performed through the oral cavity, so that no visible external scar is left, such practice seems like butchery, and the practitioner who still persists in the old way is almost guilty of malpractice.

That the condition of oral surgery as practised by the average general surgeon is entirely because of the lack of better teaching in the schools, and that he will accept better methods when their value is demonstrated to him, is evidenced by personal experience. Just prior to the writer's appointment on the staff of the New York Post-Graduate Medical School, every general surgeon of the faculty who had a vote cast it against him, and he was informed that it was because they did not wish to see this

* Read before the Atlanta Meeting of the American Medical Association.

specialty established. It was not long, however, before some of these, recognizing the beneficence of the conservative method, applied for instruction and were frequently found at his clinic.

The late Prof. Garretson met with a similar, though more resisting, opposition twenty-five years ago, in consequence of which he was forced to join with a dental college, when the work that he did, great as it was, fell short of what it would have accomplished had he been connected with a medical school.

Why the faculties of the medical institutions persist in ignoring the advances which have been made in oral surgery, which it would seem have reached a point to demand their incorporation into the medical curriculum, is past comprehension. In view of the facts, one might almost question whether it is due to selfishness, self-sufficiency, or politics that this field is so entirely neglected. Certainly the present course is not in the line of scientific advancement.

It seems now time that America, if she wishes to lead in medicine, as in many other professions, should establish a medical institution devoted to the higher education of students in the department of oral surgery and other neglected subjects, such as nervous diseases, rheumatism, gout, and the treatment of the kidneys, and thus give free and unencumbered scope to the inquiring mind willing to devote itself to this work, and give the world the benefit of the results of its investigations.

To illustrate the need of a better knowledge of oral surgery among general surgeons, allow me to quote the following cases from practice :

April 19th, 1893, Mrs. M., about thirty-five years of age, was brought to me by her dentist, giving the following history : For several years she had had trouble with her teeth, some of them being abscessed, the trouble coming and going from time to time. About February 18th, the left side of her face became swollen, and a severe pain was felt in the jaw, the swelling gradually extending to the temporal region. A week afterwards the presence of pus was detected. In the meantime her physician applied alternately cold and hot applications, principally poultices, which resulted in the discharge of pus into the mouth. Three weeks later the face was still swollen and hard, and the jaws were closed. The temporal abscess was aspirated, and the pus drawn off ; but as the difficulty showed no abatement, the patient was brought to the city for treatment. My examination showed the cheek slightly swollen, with considerable swelling in the temporal region. The deep fluctuation showed the formation of pus under the temporal muscle. There was a hardened lump of the size of a peanut near Stenon's duct, and the jaws were almost closed and rigid. The inferior left bicuspid, which had been abscessed and troublesome for many years, had been extracted some two months previously,

but the socket had refused to heal ; there was also periosteal and sub-periosteal inflammation throughout the entire labial and buccal surface of the inferior maxilla on the left side extending from the central incisor back to and up along the ramus of the jaw. From this inflammatory centre, in my opinion, both the temporal abscess and the one in the cheek had formed, and I demonstrated it to the dentist as the cause.

June 1st, the patient again presented herself at my office with the following additional history, begging me to operate for her : She had been advised to go to a general surgeon whom she was assured was a specialist in oral surgery, in fact a specialist in every branch of surgery. He had performed six torturing operations in six weeks without satisfactory results, and stated as an excuse for the seventh operation, which he proposed doing, that he had not known and did not know the cause of her trouble, and that he would make an incision from the temporal region to the lower portion of the cheek, a distance of about six inches, opening up the face to the bone to ascertain where the cause lay. This she refused to submit to and left the hospital.

Examination revealed the following conditions : The patient showed a great loss of flesh ; was feeble, anæmic and feverish, tongue badly coated, bowels constipated ; she had been obliged to submit to the loss of her hair to facilitate the dressing of the wounds. The jaws were rigidly set, and the patient swallowed even liquid with great difficulty. The face was badly swollen and indurated, pitted on pressure, and bore a strong resemblance to liver.

An abscess which pointed in the cheek near the angle of the mouth was almost ready to break through the skin. There was also a deep red spot under the left eye, accompanied by a puffy condition with fluctuation, such as one often observes in antral disease ; another of similar nature, about an inch in circumference, was situated at the external angle of the eye. There was an ugly suppurating, granulating wound immediately anterior to the ear, and extending from the middle half to an inch above it, gaping open for an inch, from which pus flowed freely. Protruding from this was a drainage tube, which passed down through the wound and opened into the mouth immediately below Stenon's duct.

The zygoma was separated from the malar bone by necrosis, its periosteum was denuded along the entire posterior surface, and the bone also necrosed. While the disease had become greatly aggravated since my first examination, and the patient's health had been much impaired, the most unfortunate complication was facial paralysis confined to this side. This the patient said had followed one of the operations at the hospital.

Realizing that there was no time to lose, we concluded to operate at once. Under ether, an opening was made through the

mucous membrane into the cheek abscess immediately below Stenon's duct, near where the drainage tube entered the mouth, and several ounces of pus were evacuated.

The granulations and sac were curetted away, leaving only the skin unbroken. The wound was antiseptically packed. An incision was made through the gum and periosteum extending from the cuspid back to and along the ramus of the jaw. This was found full of pus and granulating tissue which extended to the top of the coronoid process, beyond which I could readily pass a probe up to and under the aponeurosis of the temporal muscle. Granulations and debris were also thoroughly curetted away and the wound packed. A similar condition existed under the temporal muscle which was treated in the same manner. Several ounces of pus and debris were removed. The wound which was made at the hospital was treated in like manner. The necrosed bone along the lower border of the zygomatic arch, and the malar bone which had become separated as above noted, was likewise removed. The necrosis here was quite extensive, and extended over the entire tuberosity of the superior maxillary. The inflamed places under and at the angle of the eye were not opened into at this time, as we hoped that as these greater wounds healed, the minor troubles would also disappear. The wounds were dressed twice daily for a week, during which time large quantities of pus continued to flow until the indurated condition disappeared. As this diminished the wounds were dressed daily. The temporal wound was the slowest to heal. Finding the inflammation under and at the angle of the eye showed little signs of abating, although cold compresses were applied constantly, I concluded to open and remove the cause.

On June 6th, by use of cocaine to relieve pain, I passed a knife through the mucous membrane just above the left superior second bicuspid, and by means of a grooved director, dissected away the tissues until the abscess at the angle of the eye was reached. I then made an incision in the periosteum one-half inch in length, through which I was able to curette and remove fully two drachms of pus and several flakes of dead bone. This wound was treated in a similar manner to the others, and readily healed. The abscess immediately below and near the internal angle of the eye was treated in a like manner, and with like results, the opening through the mucous membrane being made on a line with the lateral incisor. All wounds were healed within two weeks, and the swellings and the induration of the face entirely disappeared. The ugly scar in the temporal region was then dissected out, and the parts were drawn together by sutures and adhesive plasters, until healed, leaving only a slight linear scar.

The patient was dismissed and returned to her home, June 22, with all the wounds healed, the complete use of her jaws and the

appearance of her face returned to its normal condition, save the marked paralysis which resulted from the treatment between April 19th and June 1st. Before leaving the city she presented herself at the office of the surgeon who did these first operations, and showed him the results of conservative oral surgery, asking him to note well the facial paralysis which he admitted to her he was the cause of.

Loyal to my fellow-practitioner I shielded him from his error, and prevented suit being brought for malpractice by her husband against this surgeon, who claimed to be a specialist in everything, by stubbornly declaring that I would be a witness for the defendant and swear that in my judgment he treated the case as taught in our college and text-books and according to his best ability.

To impress more definitely upon the minds of the readers of this paper perhaps the most potent cause of temporal abscess, I will narrate the history of another and similar case to the one already given.

Mr. L. presented himself with the characteristic swelling in the temporal region and complaining of great pain. Deep fluctuation was readily observed, denoting the presence of pus beneath the temporal muscle. The gums along the alveolar border extending back of the cuspid were highly inflamed and oedematous. The root of the first bicuspid tooth was found almost covered by the gum and abscessed. This had from time to time given him considerable trouble. Attributing to this the cause of the trouble, I removed it and found that I could pass a probe beneath the periosteum as far back as the wisdom tooth. An incision was made through the gum and periosteum extending well back along the ramus. This enabled me to pass a large probe beneath the periosteum up the ramus and beyond the coronoid process, following the temporal muscle until I had reached the abscess, the pus from which flowed freely down beside the probe and out into the mouth. The bone immediately under the periosteum was covered with granulations and pus. This, along with that underlying the temporal muscle, was curetted away. The wound in the jaw was packed, while that in the temporal region was douched and sterilized twice daily, and applications of ice were made to the exterior. The stiffness of the jaw at once began to improve, and in a few days it was normal in its action. The treatment covered a period of ten days, when the patient was dismissed cured, and now nearly four years have elapsed without any sign of return.

The origin and progress of this case were identical with those of Mrs. M. already mentioned, and had she had similar treatment at the same stage of her disease, the result would have been as happy as in this case and without any external disfigurement.

A similar but more perplexing condition than that referred to above, is one with the following history and results: Four years

prior to May, 1892, the patient, while suffering from a severe pulpitis caused by exposure of the pulp in the inferior left third molar, had the tooth extracted, which was immediately followed by excruciating pain, but of a vastly different character from that which he had previously suffered. He likened the pain unto a severe bruise. The pain continued to increase, and the following day he returned to the dentist and insisted upon his extracting the second molar, although it was not decayed. This the dentist did reluctantly, thinking that perhaps the extraction of the wisdom tooth might have ruptured the nerve, because of the fact that the ends of the roots were bent like a hook. The pain continued for several days, when another dentist was consulted, who continued the process of extracting teeth, but with no relief.

Medical counsel was then sought, but the case baffled all treatment for several months. The patient's health diminished, and the pain continuing in the jaw, he sought relief at the hands of the third dentist, who, like a true knight of the forceps, removed the remaining teeth of both left superior and inferior jaws. The shock to the nervous system and the profuse hæmorrhage which followed, owing to the weakened physical condition of the patient, gave him temporary relief. But the old trouble soon returned, and he found himself back under medical treatment—from which he realized no improvement, finally abandoning his business and becoming an invalid.

After the lapse of two years, he sought the aid of a general surgeon, who, concluding that the trouble was in the gums and alveolar process in the inferior maxilla, cut and chiselled them entirely away, but to no avail. For two years more suffering and medical treatment continued until the patient was little short of a wreck and all but insane. He had lost forty-six pounds in weight, was emaciated and anæmic, and he grew despondent and longed for death to relieve him of his agony.

Diagnosis of the seat of the trouble was based upon the early history of the case at the time of the extraction of the wisdom tooth. It was plain that the inferior dental nerve had been lacerated in the locality of the wisdom tooth, and that no relief could be hoped for until the nerve was severed between it and its centre. To make sure of the result, I decided to remove the entire nerve within the jaw. An incision, about an inch long, was made through the mucous membrane, directly above and back of the location of the wisdom tooth, and the tissues were separated until the nerve was reached as it entered the inferior dental foramen. The nerve was caught up and held with the bull-dog forceps, and severed at this point.

An incision was then made over the mental foramen, the tissues dissected away, and the dental nerve, where it emerged, was separated. The forceps was then tightly grasped and with a

steady tension the nerve was drawn out of the canal its entire length. The hæmorrhage was readily controlled by means of hot water, but owing to the general flabby condition of the tissues, and to the fear of a secondary hæmorrhage, the wound was packed and allowed to fill in by granulation. The patient soon recovered from the ether, declaring on his return to consciousness that "for the first time in years" he "was free from pain." The parts healed rapidly and no untoward symptoms followed the operation, save a little numbness noticeable at times in the left half of the lower lip. The patient soon recovered health, strength and weight, returning to business in two months, and there has been no return of the trouble.

I will next report a very remarkable case which came to me in April, 1892, as it may materially assist in the treatment of orchitis—being the details of one of several cases coming under my observation.

Mr. B., aged thirty-seven years, with no specific history, was referred to me by Dr. L. Bolton Bangs, of New York City, to whom the patient had been brought for consultation, with the request that I examine his jaw to ascertain whether there was any oral lesion to account for a pain complained of that day. On inquiring into the dental treatment received by Mr. B., I drew from him the following statement: Five years before the gums over the inferior left wisdom tooth, which was retarded in its eruption, became suddenly swollen and very painful. He applied to his dentist, who, in attempting to extract the tooth, broke off the crown, leaving the root, over which the gum healed, completely embedding it. Since that time he had realized uncomfortable sensations on that side of the face with some soreness of the inferior second molar which baffled the skill of those hunting for the cause.

The patient supposed the root to have been extracted at the time the crown was separated from it. Three years following this visit to the dentist, he was attacked by excruciating neuralgic pains in the left side of the face, which, until two months before calling on me, unfitted him for business. This pain gradually worked its way down the left side of the body, extending to the groin and left testicle, which became inflamed, swollen and troublesome. All efforts on the part of his surgeon to relieve his suffering were unavailing.

One of the peculiar features of the treatment in this case is, that when hot or cold applications were made to the testicle, the pain ceased in it, but immediately appeared in the left side of the face. As soon as the applications were removed, the pain returned to the testicle.

After examining him, I concluded it was a case of metastasis, such as is frequently connected with mumps. I sent the patient back to Dr. Bangs with the following note: "I believe I have

found the cause of this long and persistent neuralgia, and that, if I operate the patient will no longer have need of your services, as the orchitis will disappear with the healing of the wound."

The patient was not long away, for the wide-awake specialist sent him back with a note stating, "You cannot operate too quickly to suit me, you have awakened my curiosity. I am interested and will be pleased to follow the case with you."

Examination revealed a slight necrosis of the alveolar process immediately back of the inferior second molar, the pulp in the distal root of which was dead and abscessed, the pulp in the anterior root being vital and exposed. There was a large cavity in the distal surface of the tooth, below the enamel, concealed by the gum, hence the long continued soreness of the tooth. I extracted this tooth and removed the slight diseased condition made by the abscess.

The cavity in my opinion was caused by secretions forming between the second molar and the wisdom tooth, which abutted horizontally against it. There was no satisfactory evidence of the extraction of the root of the wisdom tooth, and the gum over it appeared normal. But, to be sure that all possible cause for the pain was removed, I laid open the gum, cut through the periosteum and bone, and suddenly struck upon the root which had so long been buried. In examining to ascertain its position in the jaw, I plunged my probe into the living pulp of the root. You can better imagine the result of this thrust than I can here tell it. The patient's actions reminded me of the antics of a jumping-jack when the string is pulled. Under an anæsthetic I dissected out and removed this root. The wound healed readily, all pain ceased with the operation and the patient made a complete recovery. There was no swelling of the testicle the day following the operation—all pains and soreness disappearing within forty-eight hours. It has not since returned, the patient being restored to perfect health.

It gives me great pleasure to mention here the praiseworthy attitude of Dr. Bangs in contra-distinction to that of the surgeon who handled the case of Mrs. M.

The next case is one in which the cause is so plainly discernible that it is liable to be overlooked. An old lady in her "sixties" had for many years suffered intensely from facial neuralgia. After repeated failures of medical skill, the patient was transferred to the general surgeon, who, in six years did several operations in the right superior and inferior maxillæ, resecting the nerves and deforming and disfiguring that side of the face. When I was called to see the patient all the teeth had been extracted from the right side of the mouth, but the pain remained incessant—less, however, at night, and when she lay upon her right side, or when her face was swathed in flannel and protected from cold blasts of air.

Her general health in consequence of her long continued suffering was greatly enfeebled. Examination of the mouth was unsatisfactory, so I looked further for the cause, which I apparently found in two large "seed" moles, one of which was situated immediately in front of the ear, and the other three inches below on the affected side of the face. A few drops of cocaine were injected beneath the tissues at the base of these moles, and the skin dissected sufficiently for a small ligature to be thrown about them and firmly tied. The moles were snipped off with scissors and the stumps cauterized with nitrate of silver. The ligatures came away with the sloughs which formed, and the wounds healed without further treatment.

An examination of the moles revealed an exposure of the nerves, which were also intensely inflamed.

Several months subsequently I received a letter from the patient's son, stating, "Since the simple operation which you did for my mother, she has not experienced the slightest pain and daily blesses you."

Similar cases are common where patients have travelled nearly the world over consulting physicians in search of relief at an enormous expenditure of time and money.

The operations described are not new to those familiar with the progress of oral surgery as worked out by the more advanced members of the dental profession, but the fact remains that the general information given to the medical student is insufficient for the proper handling of these cases.

I speak within bounds when I say that maltreatment at the hands of men ignorant of the higher development of this branch of surgery has given me the greater number of my patients.

There is no question that the more cultivated dentists know the surgery of the mouth better than the surgeon who has been only generally trained; know better also the relations of disorders of the oral cavity with contiguous and distant tracts, and are better prepared to diagnose the cause of many obscure lesions connected with those relations.

I would therefore recommend to the surgical profession, particularly to those who have had no special opportunities for studying the diseases of the mouth, the calling in of a skilful dentist, preferably one who has been medically educated, at least for the benefit of his judgment in diagnosis, whenever there is room to suspect oral complications.

Our medical schools will not do their entire duty by their students until they add to their list of teachers dentists of the ability to instruct their students in diseases following affections of the teeth; and our text-books will be lacking until they give proper attention to oral surgery as viewed from a conservative standpoint.

—*N. Y. Medical Journal.*

Dominion Dental Journal

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VOL. VIII.]

SEPTEMBER, 1896.

[No. 9

THE ONTARIO DENTAL SOCIETY.

The eighth annual meeting to be held in the new College building, in Toronto, from the 30th of the present month, until the afternoon of the 2nd of October, should, for many reasons, be the largest gathering the profession in Ontario has ever held. The programme, which appears in full in another page, is of practical interest, sufficient in itself to draw the members together. But the political feature of the occasion will be unique, inasmuch as it marks the great educational progress in Ontario, and the splendid facilities now provided for aspiring students. No one would, perhaps, be so foolish as to believe, that Ontario should relapse into the educational condition it occupied even ten years ago ; but there are many who do not hesitate to declare, that the profession is overstocked, and that some higher standard of selection and entrance than now exists should be devised. It is indeed a humiliation, that this auspicious occasion of the opening of the new building, should be coincident with the most degraded ethical acts on the part, not by any means of recognized quacks, but by those who are forced by circumstances of over-crowding and the fight for existence, to resort to quack methods. This question cannot be avoided. It may possibly not trouble or affect the small minority whose practice is secure, or the few who enjoy collateral means of increasing

their income. It makes no odds who makes light of the facts. They are facts that stare us in the face and touch us in the pocket, as well as in our professional self-respect. If any man will rise to deny them, the reasons for his disclaimer can be personally and selfishly explained.

However, it seems to be accepted, that if young men insist upon crowding into the already over-crowded profession, they must be provided for. It is true that when a given space of room is "full," it can hold more—if new-comers are allowed to stand on the heads and shoulders of those already in. One needs but little atmospheric knowledge to understand that this condition means that only the fittest can survive. But there should be no need in our great Dominion, with its small population, why any man should obtain his living by destroying that of his neighbor. It can be seen then, that the Dental profession and their representatives, have inaugurated an educational policy in Ontario of the purest unselfishness.

WORK AND PLAY.

Very few practising dentists realize the amount of time and thought, which an editor of a monthly journal has to devote to its interests. Even if every page was scissored from our contemporaries, it would be considerable work. Dr. Geo. S. Martin, in his "Abstracts," condenses every article, and makes a careful search through all the exchanges. The editor monthly looks over every page and item of every dental journal, and several medical and educational, besides keeping up a fire of correspondence for information, etc., which every day gives him work to do. Of course all the labor is supposed to be done in one's leisure, but when the task is congenial, it is quite certain to encroach upon the most valuable hours of one's legitimate work. We have succeeded by a great deal of personal effort in getting a good deal more original matter than most of our contemporaries. Sometimes we have metaphorically had to go on our knees to get it. There are an awful lot of lazy fellows in the Canadian profession, who would rather go duck or deer hunting, or trout fishing, than stay over hours in their office, or sit down to write an article for the JOURNAL. We are built exactly that way, and there is no memory of the greatest professional success in operating, which can rival that of a week among the Laurentian Hills, where the cobwebs and the rust of daily toil disappear like the mist before the sun. Thank God for not having included the shooting of game in the ten commandments.

A UNITED PROFESSION WANTED.

If there was ever a time in our Canadian professional history when men who want to do well should unite their forces against men who seek to do evil, it is the present. We have never before witnessed so many cases of aggressive unprofessionalism, of men who openly use quack methods of advertising—the woods are full of them. What are we to expect of the future? What is to be the harvest of the policy of *laissez faire*? Shall we do anything—or nothing—to counteract the public falsehoods and pretences of the quack advertiser?

Why is it that our provincial societies do not enlist the active interest of the large majority, instead of the weak minority of practising dentists? Why are the members of the Board, and the faculties of the Colleges, left to do so much work alone? What right have men to air their grievances through the JOURNAL and in letters to the editor, to which they will not put their names, on the overcrowding of the profession, quack advertising, if they take no part in the only organization where these questions can be discussed? The absentee is an unconscious abettor of the mischief-maker. The voice of the profession in a convention is echoed in the public press, and can be made to influence public opinion. The voice of the quack advertiser goes on forever, at first in high-sounding pamphlets and advertisements, and then—when funds fail—in the mere repetition of the advertiser's name. This JOURNAL is not sent to the public press, and therefore has no such public influence. The only influence it can directly exert is upon the dentists themselves, and we venture to believe it has been salutary. It is our business to stir up the profession, not to arouse or influence the public. When those who use quack methods flock together to do mischief, it is surely time for those who wish to do well, to unite in the interests of the profession and the public. The Provincial societies are the proper places to discuss these matters with a practical object. It has been pretty clearly proved in this country, that the policy of letting things drift never cures an abuse. We want firm and manly aggression on the part of honorable men. It is neither fair nor likely to be fortunate to expect the few leaders to be the only workers.

THE physician who is mean enough to use his diploma as a cover for quack medicine men, is invariably in the position in his profession to which his instincts lead him—at the bottom. The dental birds of a feather generally keep him company.

CANADIAN DENTAL JOURNALISM.

A BIT PERSONAL.

Twenty-seven years ago, we ventured to issue as a monthly the first number of the first dental journal in Canada. With becoming modesty, it is not out of place to say that it has done some service to the Canadian profession, which a foreign journal could not as well accomplish. Its editor has been in the swim of most of the Provincial organizations, and has unceasingly kept in touch with their political as well as their scientific progress. Necessarily, the politics of dentistry must engage a great deal of one's thought. The social, and indeed the scientific unity of the profession, must be founded and perpetuated upon a solid ethical basis. From the first issue of the *Canada Journal of Dental Science* to the present number of this journal, we have never swerved in the least degree from the ethical and educational principles first announced. It has made us some enemies, who are the enemies of all dentists who are ethical, and whose enmity we prefer to their friendship. It has made us a host of firm friends and helpers, whose frequent differences of opinion we respect, and whose criticism we gratefully receive. The JOURNAL is the organ of the profession in Canada. If its editor has hit hard blows at quackery and quack methods, it was done only on behalf of the profession and the public. If he has erred in many ways, as no doubt he has, it only goes to show that an editor is but human. One has not to apologize for that.

ONCE upon a time there were two well-deserved slurs against the Canadian dentists, the gravamen of which was, that they were not a reading profession, and that they had no such unity of purpose as our enterprising brethren over the border. It is still a reproach to some extent, that the travellers for our dental depots meet quite a number who either boast of their independence of such aids to knowledge, or for various reasons, object to adding to their expenses the paltry cost of one or more dental journals!

WE have received letters from several parties who say they are "personally insulted" because of our remarks about quack advertising. We take it as a personal compliment that we have succeeded in making these people feel sore. It would be still more complimentary if we could succeed in making them ashamed. Some of the foolish young fellows who took fright and sailed in for quack advertising, are, we know, ashamed of the policy into which they were led. But there are several congenital skallywags who could blush no more than an elephant.

THE *Post-Graduate*, in commenting on the prosperity of quacks, says: "The fact is, that the United States of America are not yet sufficiently civilized for the daily newspaper to have a real appreciation of what the profession of medicine does know and does not know. In other words the average reporter, and possibly the average editor, still believes in clairvoyants, the seventh son of the seventh son, the bone setter, and the healer who neglects the barber and cultivates the sublime art of curing disease which does not exist." We have repeatedly drawn attention to the use made by quacks of the press, and various suggestions have been offered as to the best means of exposing them. The Provincial societies, we repeat, should devise some plan which the members could carry out in their own localities. The public is not responsible for its ignorance of dentistry. The dentists themselves are largely responsible for this ignorance. The popular belief—it is not a superstition—that the "parlor" advertiser is able to do all he advertises, is perfectly natural. What are respectable dentists doing in their own communities?

THE meeting in Toronto this month should be made social as well as scientific; political as well as practical. We are in the very thick of questions touching the sentimental as well as the serious burdens of our professional lives. Men talk for a twelve-month, and worry for years about present and impending difficulties, who are curiously silent when they meet upon the only occasions when they can be discussed. Men who stiffen their "back-bone," and mean to have it out on the question of ethics, become as bland as cooing doves, and as pliant as mollusca. There is no need for angry words, which only defeat their object. There is no reason why any licentiate, animated by respect for himself and his profession, should not inquire as to the present or prospective difficulties.

THE general public have not now an exaggerated idea of the dignity of the dental profession. They have of that of the other professions. The juxtaposition of the Hair Dresser and the Dentist in John Eaton's departmental store in Toronto is an object lesson in professional dignity, is it not? They should take down the thin partition and hug each other.

"THE overcrowding of the professions;" "the abuses of hospital practice."—Such are the leading subjects of discussion in the London, (Eng.) medical journals.

ONE of our quack-method advertisers had his card dropped into the book-racks of all the pews in several churches of Montreal!

IF the dentists who are ethical and honest were half as persistent in their exposure of quack methods as the quacks are persevering in their falsehoods, the ethical and the honest would soon drive the false and the pretentious to the wall. But there are timid men who have so little fight in them that they would rather suffer than complain. There are others whose ideas of ethics go to the extent of believing, that it is unethical to bother themselves about the matter. There are others who believe in exposure of the imposters, and education of the press, but they like others to do it. If the fighters get hurt, they escape. If they smash the quacks, they share in the "profits." "There are others."

Correspondence.

PULL TOGETHER.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—The bombardment of quackery and quack methods, in which you have been engaged for the last year, has had, directly and indirectly, good results. I have made your articles subjects of monthly conversations with those of my patients who were in any way influenced by quack advertisements, and I have taken opportunities to bring them before the special notice of the editors of our two papers, and I am glad to say that I succeeded in getting both of them to copy in full, the article in the June issue, on "The Neglect of the Teeth in Country Districts." It did a lot of good. Every one of us can use the pointers before our patients and with our local press. We can show the editors that it is in the interest of the public to do so, and I hope we will discuss this subject at our meeting in Toronto.

I know quite a number of our young men who have been dissuaded from using quack methods, by the articles in the JOURNAL. Perhaps you do not please everybody. You may even have enemies. I would like that we should know who they are. The JOURNAL is an absolute necessity to us, and conducted as it is, is doing a splendid organizing and protective work for us. It may not succeed in ridding the profession of all quack methods, but it will certainly reduce them to a minimum, and if the respectable dentists of the Dominion, and of Ontario especially, would each put in their oar, the pull together in defence of the dignity of the profession, and the protection of the unsuspecting public, would be strong and effective.

Yours,

L. D. S.

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No. 10.

Proceedings of Dental Societies.

OPENING CEREMONIES OF THE ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO.

The new building of the Royal College of Dental Surgeons of Ontario, on College Street, Toronto, was formally declared open on Thursday, October 1st, 1896, under the most auspicious circumstances. The opening ceremonies commenced at 3.30 o'clock p.m., in the main lecture hall, where the dentists, professors and their friends to the number of two hundred had assembled, among them being many nicely attired ladies, whose presence added greatly to the occasion.

The hall was beautifully decorated with potted plants, sweet-smelling flowers, British and American flags, and festooned with the College colors—red and blue. Above the blackboard were the initials "R.C.D.S.," wreathed with the colors of the College. Altogether the effect was most charming. Glionna's orchestra discoursed appropriate music during the afternoon.

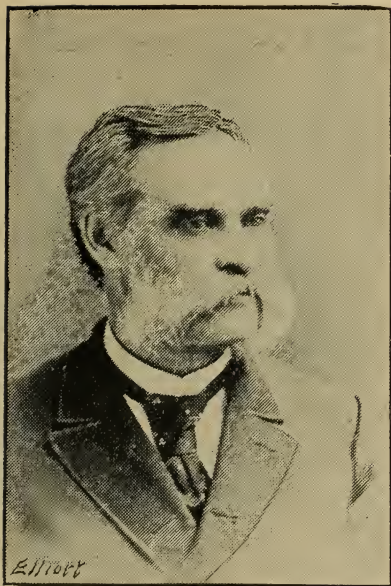
To the strains of "God Save the Queen," the following gentlemen accompanied the President, Dr. R. J. Husband, into the hall, and were seated on either side of Dr. Husband, who occupied the chair: His Honor Lieutenant-Governor Kirkpatrick, Capt. Arthur Kirkpatrick, Hon. G. W. Ross, Rev. Principal Caven, Prof. Thos. Fillebrown, Dr. H. T. Wood, Dr. J. B. Willmott, Prof. L. Teskey, Prof. W. T. Stewart and Drs. A. M. Clark, G. E. Hanna, W. A. Brownlee, J. A. Smith, J. A. Marshall and Mr. Dick, the architect of the building.



DR. R. J. HUSBAND, President Board of Directors.

Dr. R. J. HUSBAND, in opening the meeting, said : "Ladies and gentlemen, on behalf of the members of the Royal College of Dental Surgeons of Ontario, I extend to you a cordial welcome to join with us in the opening ceremonies of our new College. Those of you who have not had an opportunity of going through the different departments of the College will be escorted through after this meeting is closed. In opening this College this afternoon, we desire to recognize the helping hand of our heavenly Father in its erection, and I will therefore ask the Rev. Dr. Caven to offer the opening prayer."

Rev. PRINCIPAL CAVEN—
Thou, Lord, art the source of all good and of all blessing. In the name of Jesus Christ, thy beloved Son, we seek from thee the pardon of our sins, purity of heart, peace with God, and devotion to His service. We thank thee for the loving kindness and tender mercy with which thou dost visit us in Christ. We thank thee for the hope of eternal life given us in Him. We thank thee for all temporal blessing by which this life is cheered and strengthened. We bless God for the intellectual endowments which He has bestowed upon us, by which we are elevated above creation around us. We thank thee for the educational advantages so richly enjoyed by us in this land. We thank thee that thou hast caused provision to be made for the education and training of all classes in this community; especially do we give thanks for the educational establishments such as this, in whose interests we have to-day met. The Lord has been pleased to bless this institution in the past, and make it an efficient means of accomplishing useful work. Thou hast prospered the efforts of those who undertook to build and to equip this edifice, and in opening it for its proper work this day we humbly seek that thy divine blessing may rest upon the instruction which shall be here communicated. Richly bless and endow those who shall teach and those who shall learn in this establishment, and make it more and more useful and efficient in accomplishing the work which it represents. Accept this offering which thy servants to-day desire



DR. WILLMOTT, Dean.

to dedicate to thee, and abundantly bless those whose liberality has provided it. Bless us all with the knowledge of thy will in this life, with a heart to serve thee faithfully, and receive us at last into thy heavenly kingdom. Our Father, which art in heaven, hallowed be thy name; thy kingdom come; thy will be done in earth as it is in heaven; give us this day our daily bread; and forgive us our trespasses, as we forgive them that trespass against us; and lead us not into temptation, but deliver us from evil. Amen.

Dr. HUSBAND — It is with pleasure I introduce to this audience Dr. J. B. Willmott, Dean of the Faculty, who will read a paper, "Review of Dentistry in Ontario." It is not necessary for me to say anything in intro-

ducing Dr. J. B. Willmott to the dental profession, as he is well known to all.

Dr. J. B. WILLMOTT, whose name was received with applause, read the following paper:

REVIEW OF DENTISTRY IN ONTARIO.

The opening of this substantial building with its magnificent equipment, owned by the dental profession of Ontario, would seem to be a fitting time to look backward and briefly trace the development of dentistry in this Province.

In the beginning, dentistry as a profession in the Province of Ontario was "without form and void." That beginning does not date back more than fifty years, 1846. At that time there were probably six persons in the Province engaged in the practice of dentistry, all either from England or the United States. These increased, partly by immigration, and more largely by a brief apprenticeship of from three to twelve months in the office of a practitioner, so that by 1866, when organization first began to be discussed, the numbers were estimated at 175. In January, 1867, Dr. B. W. Day, of Kingston, invited a number of dentists to meet in Toronto for the purpose of organizing a Dental Association for the Province. The result was so encouraging that another meeting was held in Cobourg in July of the same year, which was more

largely attended and the organization completed. At the third meeting held in Toronto, January, 1868, eighty per cent. of the legitimate dentists of the Province were present. The credit for this successful attempt to organize the profession is largely due to Messrs. B. W. Day, J. S. Scott, F. G. Callender, John O'Donnell, G. V. N. Relyea, C. S. Chittenden and H. T. Wood. Of these Dr. H. T. Wood, Toronto, is still an honored and active member of the Ontario Dental Society, while our venerable friend, Dr. Relyea, is an active member of the Sixth District Dental Society of New York State. The others are gone over to the great majority or are engaged in other occupations.

As the result of misunderstanding and personal grievances, a number of members of the Ontario Dental Association withdrew, and in October, 1868, organized the Ontario Society of Dentists for the specific purpose of discussing professional subjects. In 1869 the two societies united under the title of the Union Dental Association of Ontario, enrolling a large percentage of those legally engaged in practice. With the exception of three years the society has held annual meetings, at which a fair percentage of the licentiates have attended, with profit to themselves and advantage to the profession. From time to time local societies have been organized, so that these now exist in all the principal cities, as well as a vigorous "Eastern Dental Society," embracing the section of country lying east and north of the city of Kingston. It is to be regretted that the membership in the societies has not increased in ratio with the increase in the number of practitioners. Possibly the younger members have been crammed so full of information at college that they have no capacity for further instruction. One of the immediate results of the organization of the Dental Association in 1867 was an agitation for statutory incorporation. This movement was materially assisted by the members of the Medical Council and the heads of the Medical Schools in Toronto. After much consideration a draft statute was approved by the Association in January, 1868, and a petition for its enactment presented to the Legislature of Ontario then in session. The time was opportune; the Legislature was favorable; public opinion approved; the only difficulty lay in adjusting legislation to the personal views and interests of each of the two hundred dentists of the Province. This difficulty seriously endangered the bill. Many dentists had friends in Parliament, and several of these were ready with amendments to cover the private interests of constituents. Conferences were held, compromises suggested, finally an agreement reached and on the last day of the session the bill was read a third time and passed. On the 4th of March, 1868, amid the usual beating of drums and salvos of artillery, the Lieut.-Governor, Sir William Howland, presented the new-born corporate infant to the public, bestowing

upon it the high sounding but "truly loil" cognomen of the Royal College of Dental Surgeons of Ontario.

The "Act respecting Dentistry," as passed in 1868, was undoubtedly crude in many points, and incomplete and inefficient in others, but, when disposed to criticize, it is well to remember that it antedates every other dental statute in the world, except an obsolete one of five very innocent clauses, adopted by the State of Alabama in 1841. The framers of our law had absolutely no precedent, nor was anything to be learned from the experience of others, as they were experimenting in an entirely new field. The test of twenty-eight years has vindicated the wisdom of its framers and leads the men of to-day to suspect that they "builded better than they knew." As difficulties in administration were developed the Legislature has cheerfully made such amendments as seemed necessary, so that now, with the single exception of a weakness in the "penal clause," it may be considered as complete. Having made considerable inquiry concerning dental legislation, I have no hesitation in saying that Ontario has to-day a more efficient dental law than is to be found elsewhere. Permit me to summarize: The whole dental profession is incorporated as the Royal College of Dental Surgeons; of this College every legal practitioner is a member. Its affairs are managed by a Board of Directors, made up of one representative from the teaching faculty, and seven representatives elected biennially in as many territorial districts by the members resident therein, the election being by closed ballot, sent by mail, so that every one may participate. The duties of these directors are to fix an entrance or matriculation standard for students, prepare a curriculum of studies, appoint the members of the teaching faculty and supervise the School of Dentistry, appoint a Board of Examiners and, on their report, pass candidates for graduation and issue license to practise in the Province of Ontario, and generally to administer the affairs of the Corporation. That these powers have been conservatively exercised and no attempt made to form a close corporation, is evidenced by the fact that during the year ending September 1st, 1895, ninety-seven students, and in the year ending September 1st, 1896, 188 students, have been matriculated, a number unfortunately very much greater than our increase in population and wealth would justify. The gentlemen who from time to time have been elected directors, and have given time and thought to the affairs of the College, are entitled to, and I trust receive, the thanks of every member of the profession. But one of these, our honored friend, Dr. H. T. Wood, has been a member of every Board since 1868. The present directorate have initiated a practice which they hope may be continued by their successors. That each succeeding class of students may become familiar with the features of the men who have so wisely guided the affairs of

the College, they have had made by the well-known artist, J. W. L. Forster, Esq., life-size crayon portraits of the past Presidents and the present President, and the Dean of the Faculty, and these now adorn the walls of the Board room. Since the profession was incorporated in 1868, 726 certificates of license have been granted by the directors; of these 21 are not in the Province, 77 have died, 83 have removed or ceased practice, and 545 are now resident practitioners.

Since very early in our corporate history, 1872, an entrance examination has been required of dental students. In 1878 the certificate of the Education Department was substituted and since that time no entrance examination has been held by the College. The standard has been raised from time to time until now it is matriculation in the faculty of Arts of a Canadian or other recognized University, or an equivalent certificate issued by the Education Department of Ontario. In this matter we may fairly claim to lead the dental colleges of the world.

Closely associated with the incorporation of the profession was the question of a School of Dentistry. At the first meeting of the directors this matter was the subject of discussion. In August, 1868, appeared the announcement of the "Canada College of Dentistry," Toronto, a private undertaking, but so far as I can learn, it never materialized. In October, 1869, the teaching department of the Royal College of Dental Surgeons was organized, and commenced operations. At the close of the first session the directors were financially embarrassed, and the staff was disbanded and the school closed. At the meeting of the Ontario Dental Society held in Hamilton, July, 1875, the following resolution was unanimously adopted:

"In view of the admitted want of a dental school in this Province, this Society earnestly recommend to the Board of Directors of the Royal College of Dental Surgeons of Ontario, as soon as possible, to avail themselves of the powers given them by the amended Dental Act, and take the necessary steps to establish a School of Dentistry in Toronto, and to aid it by such appropriation of funds as in their judgment may be expedient."

On receipt of this resolution the directors of the Royal College of Dental Surgeons, after some hesitation, decided to take the necessary steps to establish a school, and requested Dr. J. B. Willmott and Dr. Luke Teskey to undertake the task, the conditions being that the directors should assume no financial liability beyond any grant which might be voted in aid of the school. These gentlemen gave the matter long and serious consideration, and finally accepted the commission on the terms prescribed by the directors, conditioned on their granting \$250.00 for furnishing, \$150.00 per annum for rent, and that not less than eight students would promise to attend the first session.

These conditions were complied with and the School of Dentistry opened on November 3rd, 1873, with eleven students. At the regular annual meeting of the directors in March, 1876, this agreement was formulated into a by-law under the provisions of which the school was conducted, Dr. W. T. Stuart and Dr. W. E. Willmott being subsequently added to the faculty and demonstrators appointed as necessity required. By 1893 the attendance had so increased that it was thought wise to amend the by-law so as to provide that the school should be conducted by the directors, they receiving all lecture and other fees and paying the teaching staff and all other expenses. The school was reorganized, the staff enlarged, and for the fourth time new premises obtained and fitted up. At the meeting of the directors in April, 1895, it was apparent that the only way to provide suitable accommodation for the growing classes would be to erect a building.

With \$16,000.00 cash in hand it was thought that the enterprise could be easily financed. A lot was purchased, Mr. D. B. Dick selected as architect, a Building Committee appointed and the matter so vigorously pushed that by August 1st, 1895, contracts were let and the work commenced.

This beautiful and substantial building, with its complete equipment, has cost, including the ground, \$46,000.00. By the first of November next the liability of the directors will not exceed \$11,000.00. This entire property belongs to the dentists of Ontario, each one of whom has an equal share both in ownership and management, a condition of things unique in the history of dentistry, and one on which the dentists of Ontario may well be congratulated.

In the early efforts at dental education a difficulty was encountered in the fact that while all the American dental colleges conferred the degree of Doctor of Dental Surgery, the Royal College of Dental Surgeons had no such power.

In 1872 the directors sought from the Legislature several amendments to the Dental Act, and among them authority to confer a degree. The Hon. Adam Crooks, then Minister of Education, informed them that the policy of the Government was to confine any further degree granting power to the University of Toronto, and that at the ensuing session the University Act would be so amended that it would have power to grant a degree in dentistry as well as in other branches of science. This promise was kept, and to benefit by its provisions, prompt application was made to Toronto University for affiliation and a curriculum in dentistry. This was backed up with such respectable precedents as the Royal College of Surgeons, England, Harvard University, Mass., the University of Michigan and others. The petition was presented by Dr. Wm. Oldright, our staunch friend in the Senate, but, though

no official intimation was ever given that the application was declined, we were never advised that it was granted. In turn application, formal or informal, was made to each Ontario University with one exception and these were officially or unofficially refused or declined. Dentistry had not yet assumed sufficient importance to be recognized.

When Mr. Wm. Mulock, now the Hon. Wm. Mulock, LL.D., Postmaster-General of Canada, was elected Vice-Chancellor of Toronto University, his policy was to widen its sphere and influence and to encourage suitable affiliations. His attention being called to the needs of the dental profession, he suggested that another application for affiliation should be made. This being done, it was received by the Senate in the most cordial manner, a statute, affiliating the Royal College of Dental Surgeons, being passed in May, 1888.

The curriculum was approved in November of the same year and the first examination held in March, 1889. It is a somewhat interesting coincidence, that on the day dentistry in Ontario, as a corporate body, attained its majority, March 4th, 1889, twenty-five dentists and dental students paid in their fees and filed their applications for admission to the first examination ever held by a British University for a doctor's degree in dental surgery.

The high standard which characterizes the curricula of the several departments of Toronto University is equally maintained in that of dentistry. While the degree of D.D.S., like that of M.D., confers no legal rights, so far as practice is concerned, it is an honor to which every dental student in Ontario aspires. While in 1868 but one gentleman in Ontario, Dr. H. H. Nelles, of London, possessed a dental degree, in 1896 over 270 members of the Royal College of Dental Surgeons are Doctors of Dental Surgery.

In an hour or so His Honor the Lieut.-Governor will declare this building opened. For what purpose? Not to educate men to practice a specialty of medicine, but to educate dentists. Dentistry cannot properly be considered a specialty of medicine. It is true that it is a branch of the healing art, but it has not grown out of medicine; it forms no part of the curriculum of medical schools; it has received no aid from medicine as a profession, though individual physicians have rendered it great service.

In its genesis and history no closer relationship can be traced than as an adjunct of medicine it covers an important field in the great healing art for which medicine has not in the past, does not now, and is not likely in the future, to make any provision. Dentistry has grown up outside of medicine. It has organized its own colleges. It has its own text-books, its own literature, its own periodicals, its own societies and its own appliances.

Though, compared to general medicine, it occupies a very narrow

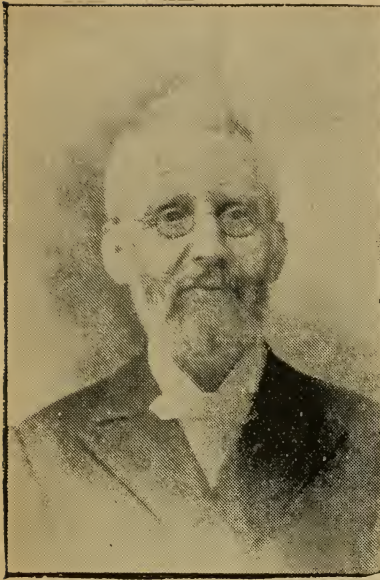
field, it has still a score of unsolved problems, in which all civilized members of the human family are deeply interested, to the solution of which the brightest and ablest of men might well devote their thought and energy. Dentistry in Ontario has made great progress in the past thirty years. With added advantages it may make greater in the next. Buildings and material equipment do not make efficient educational institutions; that depends on the teachers, but these are of great assistance.

The aim of the Royal College of Dental Surgeons is, through its teaching faculty, to so educate the mind, judgment, eye, hand, and heart that its students may become skilful, successful, honorable dentists, proud of their profession and a blessing to their fellow men.

To this end this building is this day dedicated.

Dr. HUSBAND—I have now a pleasing duty to perform in introducing to you the oldest member of the Board, Dr. H. T. Wood, Chairman of the Building Committee. You have already heard from the Dean of the College that Dr. Wood has been a member of the Board since 1868. Dr. Wood has rendered valuable services for us on the Building Committee.

Dr. H. T. WOOD, on rising, was received with applause. He said: Your Honor, ladies and gentlemen, I might say this is the proudest moment of my life. I have been waiting for this object for the last twenty-five years, and I am now witnessing what I have looked for. In as much as the history of dentistry was well given to you by Dr. J. B. Willmott, I will devote my time to the preparations for the building of this house. As soon as the financial question was settled, the Board went to work as one man; they went to work in harmony, they worked in unison, and they laid the matter before the architect, Mr. Dick. Before going on with the building, and before concluding the primary arrangements, we thought it advisable to appoint a committee to visit the American colleges. Dr. J. B. Willmott and myself were appointed. We visited two colleges in Baltimore, two in Washington, three in Philadelphia and one in New York. We obtained all the knowledge that we possibly could, as well as getting the benefit of their long experience. I understand that the Baltimore college is the oldest dental college in the world. We took notes of the way the buildings were erected and the appliances they had, so as to give us some guide for the building of this College. We came home with considerable knowledge, which was stored in the storehouse—Dr. J. B. Willmott; through him it was given to Mr. Dick, and from which Mr. Dick made the plans and specifications—that was so far as the building proper was concerned. The building was then built, and last year the roof was put on, and the building enclosed. This spring it was thought wise to send another committee to visit



DR. H. T. WOOD, Chairman Building Committee.

the American colleges, and the worthy President, Dr. Husband, and Dr. W. E. Willmott were appointed. They visited different colleges, one in Buffalo, one in Detroit, one in Ann Arbor, two in Cleveland, and three in Chicago. They obtained a lot of information, and they came home and supplied the storehouse—Dr. J. B. Willmott, with more figures and plans. Having this information, Mr. Dick, our architect, went to work and prepared the plans and specifications for the fixtures. This building is now complete, and so far as I know, or can learn, we have the most complete dental school that exists on this continent, or possibly in the world. We have it complete in every sense. We

have had in erecting this building the advantage of the long experience of those colleges that have existed for years, that is a very important thing in building an institution of this kind. In regard to the building, it is three storys and a basement, the measurement being 106 feet deep by 50 feet frontage, with twenty-four rooms, three lavatories, with light, heat and ventilation. The ventilation of this room is as complete as the day will permit. I think you can hear the fan running which is carrying the foul air from this room, throwing it out of doors, and the fresh air coming in over our heads taking its place. We have every convenience and every improvement in this building that science will suggest, and I again repeat that so far as we know, this College is the most complete institution of its kind in the world. We trust this College will do good service and be a benefit to the people of the Province of Ontario. I know if the dental profession is benefited that the community will be benefited, and thus it must be a benefit to the people of the Province of Ontario, and this building has been erected for that purpose. (Applause.)

Dr. Husband then vacated the chair, and Dr. Wood presided for the remainder of the meeting.

Dr. WOOD—I have much pleasure in introducing to you the Hon. Dr. Ross, Minister of Education.

Hon. G. W. ROSS, on coming forward, was received with

applause. He said : Ladies and gentlemen, I wish to congratulate the directors of the Royal College of Dental Surgeons, and the faculty as well, on the very beautiful illustration they have given us of what good sense, judgment and taste can do in providing suitable accommodation for instruction to the profession. I have not seen all within this building, but I have seen the greater part of it. In every detail considerate provision seems to have been made for the wants of the students, for their comfort, for their instruction, and in every other respect in which their advantages could have been anticipated. The College directors have shown great judgment and enterprise in embarking upon and engineering this building to completion. Of course to us not familiar with the details of the profession it is somewhat marvellous that the directors were in such a strong financial position. How they got \$16,000 to begin with, is what I cannot understand, when we consider the difficulties that we have in finding money for other things. Perhaps they had been anticipating a gold mining boom in British Columbia. (Laughter.) I am glad to see that they put the money to such good use. I might say here, if they have any money that they do not know what to do with we will be pleased to receive it. (Laughter.) I am glad to observe from Dean Willmott's paper the progressive and upward evolution of dentistry in Ontario. It seems to have made a suitable advance, and it shows that somebody with judgment and forethought must have managed the interests of the profession from its earliest history in Ontario, otherwise we would not have had such good results. As a member of the Ontario Legislature, I am delighted to know that the Legislature of this Province had the good sense to early trust the dentists of Ontario. There was a great deal of progressive spirit in the pioneer days ; if there had not been, this great profession might have remained dormant, and we would not have seen this beautiful structure erected. It is what you might expect from the Legislature of Ontario, and also considering that I have taken so much pains, as Minister of Education, to train the people of this country, as well as Dr. Ryerson, who had worked so hard to lay the foundation so as to be able to give the people a good education. I am also pleased that the Royal College of Dental Surgeons have an ideal in regard to professional education. You have taken a high standard for matriculation in this profession. It is of first importance to the profession that young men should not be admitted if they have not reached the proper educational attainment. Professional success and skill cannot be obtained without the training of the mental faculties. When a student enters upon a professional career, unless he has had a literary career before he entered, it is almost impossible for him to obtain it after. I am glad for the honor of the profession that you have

adopted such a high standard as matriculation in arts, as high as that of the general profession of medicine, and as that of the legal profession. That standard is a good starting point. To that you have added a strong faculty which deals with the various phases of work in the departments. The profession should not fail with such a high professional standing on the part of your students. I do not know much of the mysteries of the dental profession. I have occasionally called into a dentist's office, and I know with what coolness he begins to torture you for so much a molar or tooth. I am grateful for the many improvements in the profession, and for its desire to improve itself within. Such a desire is worthy of every profession in this country. It is a pleasing thing to know as Canadians that we have educated accountants, architects, engineers, teachers, and even our plumbers, who are required to be educated. You cannot have anything to teach, in the material life, that is of so much importance as science and skill. It is encouraging to those interested in education in this country to know that such a spirit is abroad in this land, and that spirit is reciprocated by every profession in the land. The next thing to see to, is to have the professional politician educated by the same process, so that he can solve with skill some of the great problems of state. I do not know if it would not be a good thing to have an educational test applied to the voter so that he would know the reason why he casts his ballot for one party rather than the other. I am glad also, for I am intimately associated with the work of the University of Toronto, to find that the University has received into affiliation this interesting institution. It is the youngest of thirteen affiliated schools or colleges. We are not ashamed of the Dental College, although the youngest of the family, and we are generally the fondest of the young promising child that has not cut its wisdom teeth, as an affiliated institution, but it seems to have cut its teeth as a teaching institution. The University has done wisely in admitting you. I am glad the State University does not want the little chaps to stand at a respectful distance away; that is not the purpose of the State University. The State University is trying to give tone and character, and to foster a spirit of good feeling towards every educational institution. It is doing that with the denominational colleges that have affiliated with it; it is doing that to the Ontario College of Pedagogy, that is the Teacher's High School; and it is doing that to medicine and to the pharmacists. The more it can do consistently with its dignity and great responsibility, the more will it be fulfilling the great purpose for which it is endowed. Mr. Ross here spoke in complimentary terms of Mr. Dick, the architect of the building, and in conclusion he said: Let me say that a great responsibility rest upon the graduates of this school. A responsibility also rests

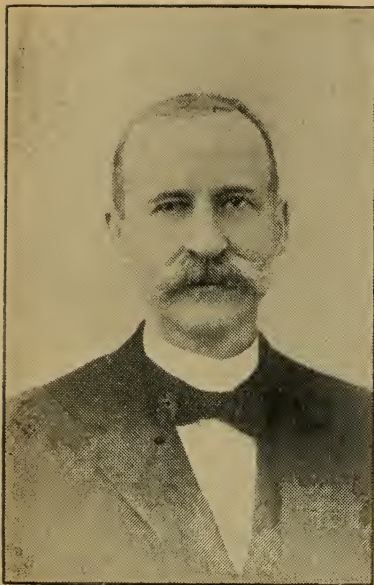
upon all educational men, who have given all their best efforts to the country. You and the Association are doing much for the education of the young men who receive an education at your hands. What should the graduates of this school give in return? You should give the best services you can to the country for the dignity and proficiency of the profession, as well as giving honest work, as Carlyle says, "having regard for veracity in everything." No stigma should rest upon the character or standing of any graduate of the Royal College of Dental Surgeons. Not only should we be good ourselves, but we should be broad-minded citizens in the fullest sense. The graduate should honor his college and his university, and if he does we feel obliged to look up to him, not only as an authority in his profession but as an educated citizen, as taking an intelligent interest in every matter that affects the education of his fellow-citizens. We have a claim upon him for the education he received, and we can only hope that the work was well done. If the foundation laid shows defects, then the structures reared will show them for many years; if it is well laid, then that will be a test of the College of Dental Surgeons, for those who receive instruction here will reflect credit on the institution, and they will be a constant benefit to the country in which they received such a generous and useful education. (Applause.)

Dr. WOOD—I have pleasure in calling upon Prof. Thomas Fillebrown, of the Dental Department of the Harvard University. This is my first interview with him, but in introducing him to you I may say that he is well known to the profession here through the literature of the dental journals.

PROF. THOMAS FILLEBROWN, on coming forward to speak, was received by the orchestra playing "The Star-Spangled Banner," the audience rising to their feet. He said: Mr. President, members of the Dental Society of Ontario, Your Honor, other guests and ladies, I have no apology to offer in opening my remarks. Men differ; but I intend to deal with the theme I am about to discuss as it appears to me. A question has arisen, "Is dentistry a specialty of medicine, or is it not?"

THE FUTURE OF DENTISTRY.

Before entering upon the discussion of my theme, I desire to express my pleasure in being present to-day to assist in the exercises of this interesting and important occasion, and to return my thanks for the great honor conferred upon me by the invitation to address this appreciative and interested audience, and also make known my appreciation of the fact that you have esteemed me worthy to bring the congratulations of my confreres over the border, and in a degree represent the dental profession of the United States of America.



PROF. THOMAS FILLEBROWN, of Harvard.

I also desire to express the high esteem in which the members of the profession in this Province are held by their brethren in the States.

I wish also to thank the Royal College of Dental Surgeons for sending to the Association of Dental Faculties a delegate who has, in representing its interests, displayed such accurate knowledge, consummate tact and good judgment. The Association has been greatly benefited by his presence and advice.

I offer to-day the cordial greeting of the dental profession of the United States to the dental profession of Ontario, and I am happy to feel that the import and export of this commodity is unrestricted by government duties or commercial necessities, but is the subject of full and free

reciprocity. It seems to me fitting that to-day I should say something of "The Future of Dentistry," not in Canada alone, or in America alone, but dentistry as such in the world.

When looking into the past we shall find the antiquity of dentistry as great as that of medicine. We shall find dentistry of the present strong, active and progressive, and promising a vigorous future.

All great enterprises, economic or scientific, are the results of specific personal efforts, and every line of progress has been inaugurated and promoted by the devoted sacrifice of interested individuals.

Mathematics can never be dissociated from the honored names of Archimedes, Euclid, Kepler and Napier.

Astronomy is the discovery and almost the creation of Thales, Ptolemy, Galileo, Herschel and their coadjutors.

The science of chemistry has among its founders Aristotle, Paracelsus, Priestley, Davy and Berzelius.

Whenever the science of physics is mentioned, the names of Pliny, Newton and Franklin appear as a part of the science itself, for without their discoveries and researches it would have no basis upon which to rest.

Medicine also was born of personal effort, and the names of

Æsculapius, Hippocrates, Galen and Harvey are indelibly incorporated into the theory, practice and art of medicine and surgery.

In order to give a horoscope for dentistry, we must needs look somewhat into its past and also study the present, and the broader we find the foundations laid in the past, and the more vigorous is the present, the brighter is the hope of the future.

Dentistry has a noble past, an honorable present, and there is awaiting it a glorious future. The past is founded upon the efforts of a noble company of men whose names are revered and whose works are held in honor.

Centuries before the Christian era, medicine was divided into specialties, and dentistry appears among the first mentioned. Herodotus mentions observing the practice of dentistry among his travels in Egypt.

Hippocrates and Aristotle studied and wrote of the teeth, and two centuries later (300 B.C.) Heraclidus, Herophilus and Erasistratus are recorded as dental operators. The latter invented the leaden odontogogue or forceps. A little later Celsus advised the use of the file upon the teeth.

Thus we see that as early as the Christian era dentistry had a solid foundation in the personal devotion of some of the best minds of the age. In A.D. 150, Galen treated the subject of the teeth more extensively than any other of the ancient authors.

Ætius (A.D. 300) discovered the foramina in the roots through which the nerves and vessels enter.

In A.D. 1100, Albacasis instituted the art of replacing lost teeth by substitutes. Not much was added to this until the eighteenth century, during which the labors of Pare, Hunter, Blake, Fox, Bell and Nasmyth placed the subject on a truly scientific basis. Since then the general scientific understanding has become much more correct and comprehensive, but it has all been done on the lines laid down by these pioneers in investigation.

In 1766 John Woofendale, the first dentist on the western continent, commenced practice in New York, and later practised in Philadelphia. He was a pupil of Dr. Thomas Berdmore, dentist to George III. Two years later, 1768, he returned to England. From this time until 1781-82 there was no dentist on this continent. Then Joseph Lemaire, a Frenchman, Isaac Greenwood, an Englishman, and Josiah Flagg, the first American dentist, appeared and placed the practice of dentistry in America on the truly scientific basis on which it now stands in this country, and made themselves in truth the fathers of American dentistry.

Besides these should be mentioned Dr. James Gardette, a surgeon in the French navy, who resigned his commission and settled in Philadelphia in 1784, and also John Greenwood, a son of Isaac Greenwood, the pioneer just mentioned, and famed as the dentist to President Washington.

From this time on dentists continued to increase in numbers and skill, and made American dentistry famous the world over.

The discovery of the making of porcelain teeth did much toward enhancing the importance of dentistry in the estimation of the public, and increasing the demand for professional services.

After the beginning of the present century the professional aspect of dentistry was more fully appreciated, and many medical graduates entered upon its practice, supplied its literature and fixed its character as a specialty of medicine, and in 1839 the true professional sentiment, under the lead of Chapin A. Harris, crystallized in the incorporation of the Baltimore College of Dental Surgery, conferring the degree of Doctor of Dental Surgery.

Then commenced a new and bright era in the education of dentists, but somewhat marred, many thought and many now think, by the offering of a partial medical education and conferring a partial degree.

Such is the past of dentistry. The present, as the old Indian said in describing Henry Clay, "his mouth speaks for himself." So dentistry speaks for itself with the tongues of twenty thousand practitioners in America, and many thousands in Europe, and from the pages of sixty-one* professional journals, and from the halls of over sixty dental colleges, and from the pages of a literature filling a library of three thousand volumes.

The future lies either in continuing and perfecting dentistry as a distinct profession, or enlarging it in its relations as a specialty of medicine. The latter I believe to be its proper line of development.

Fifty years ago, Dr. E. B. Gardette, of Philadelphia, published a long and exhaustive petition to medical schools to add a Professorship of Dentistry, and graduate men M.D. qualified to practise the medical specialty of dentistry; and many other leading men took the same ground.

Specialism is in no science more developed than in medicine. The number of specialties are as numerous almost as the parts and functions of the human system. Many medical schools teach well-defined specialties at this time. Among these, the mouth in its dental relations does not appear. If the study of the physiology, pathology and therapeutics of the eye, ear and throat is medical science, and entitled to the distinctive titles of ophthalmology, otology and laryngology, surely the study of the structure, physiology, pathology and therapeutics of the mouth, including the teeth, is also medical science and entitled to its distinctive name of stomatology and to a place among the list of the specialties taught in medical schools.

* United States, 22; Spanish America, 3; Canada, 1; Germany, 10; France, 6; England, 4; Spain, 3; Austria, 2; Italy, 2; Switzerland, 1; Sweden, 1; Finland, 1; Holland, 1; Greece, 1; Russia, 1; Japan, 2.

Dentistry is no longer simply plugging a cavity or pulling a tooth. The educated dentist of to-day treats almost every condition which obtains in the mouth, and no less successfully than graduates in medicine, and in special cases with far more knowledge and judgment. Dentistry has also made sufficient contributions to medical and surgical knowledge to entitle it to respect as a medical specialty. It has given to the world the great boon of practical anæsthesia. A dentist (Lemmonier, 1760) first performed the operation of staphylorrhaphy, and thus opened the way for the surgical remedy for the great deformity of cleft palate. Dentistry devised and perfected the obturator and artificial velum, to supply deficiencies in the hard and soft palate which are too great for surgical interference, or when the patient will not submit to any operation.

Dentistry has furnished the most complete and efficient means for treatment of fractures of the jaws, and made perfect restoration to health and usefulness possible where general surgery has failed altogether. Surely such a record should entitle it to recognition as medicine. The proposition is by no means new, as a little history will show.

At the semi-annual meeting of the Maine Dental Society, in February, 1876, resolutions were unanimously passed declaring a thorough medical education essential to the most successful practice of dentistry ; also, that it is expedient and for the best interest of all concerned that existing medical schools should add efficient instruction in dentistry to their curriculum.

At the semi-annual meeting of the Merrimac Valley Dental Association, held in May, 1876, after a full discussion of the subject, resolutions expressing the same sentiments were passed by a unanimous vote.

The subject was brought to the attention of the American Academy of Dental Science, at their annual meeting in September, 1876, by a paper read before them ; and upon taking a vote, the Academy unanimously indorsed the same recommendations.

In December, 1876, at a regular monthly meeting, the Cumberland County (Maine) Medical Society considered this subject, and without a dissenting or doubtful voice in the discussion or vote declared for a thorough medical education for dentists, and for affording medical students instruction in dentistry, that they may not be debarred from entering the practice of so important a specialty of medicine. A committee was chosen to consider what action the society should take, and at the following meeting in January, 1877, the following report was made and adopted :

"Whereas dentistry is and should be regarded as a branch of the science of medicine ; therefore resolved, That it is the duty of

those having charge of our medical schools to see that suitable provision is made whereby all students attending the same may receive such instruction in this special branch as shall qualify them to commence its practice on their graduation. Furthermore, we would advise that this subject be brought before our State Association at its next annual meeting, that it may take such action as it may deem advisable."

As a sequence of this action, the Portland School for Medical Instruction added to its corps of teachers Elbridge Bacon, M.D., for thirty years a practitioner of dentistry, as instructor in that branch.

The same committee was continued to bring the subject to the attention of the Maine State Medical Association, and at its annual meeting in June, 1877, the following action was taken: "Resolved, That it is for the interest of the profession of this State that provision be made at the Maine Medical School whereby students may receive such instruction in dentistry as shall qualify them for its practice."

In 1881, the American Medical Association adopted dentistry as a specialty in medicine, and formed Section 7, Oral Surgery, which has been well supported ever since, and any graduate in medicine practising dentistry is qualified for full membership in that Association. The World's Medical Congress of 1881 formed a section devoted to dentistry, and each Congress held since has continued it as an integral part of the organization.

In England the candidates for a degree in dentistry are examined by the same Board as the surgeons, and a license to practise is issued by the same body to the dentist and surgeon alike. For fifty years the Massachusetts Medical Society has had members who made dentistry their speciality from the beginning of their practice, and who never presumed to anything else; and within two years new members have been accepted upon the same basis. The Maine Medical Association has several members who were elected upon the same qualification. The Board of Registration in Medicine for the State of Maine has already registered graduates in medicine practising dentistry, and has also registered dentists as practitioners of medicine. The Legislature of Missouri, to neutralize an adverse opinion given by one of the judges of that State, has already passed a special Act declaring dentistry a specialty in medicine.

Such expressions as these show the estimation in which dentistry is held in the opinion of the general public and by the medical profession, and they also make a clear declaration of the duty of medical schools to include dental instruction in the medical curriculum. I might also urge the necessity of a better knowledge among practising physicians and surgeons of the relations of the

teeth to the general system, and of pathological conditions depending on their diseases, but time permits only of its mention.

To make it practical for medical schools to include dentistry in their courses of study, some changes must be made in the present plan of the study of specialties—changes which I have advocated on every suitable occasion for twenty years. To-day no medical school that I know of gives practical instruction in any of the special branches sufficient to qualify a graduate to practise his art successfully. He who would treat the eye, the ear, the nose or the throat must take several courses after his graduation, under special instructors at home or abroad, in order to acquire the manipulative skill to pursue his vocation.

When medical education is organized upon the plan proposed, and each student shall be required to be informed in all the principles of medicine, and shall have opportunities to perfect himself practically in some one specialty, then will dentistry assume its proper place. It will be found that it will take quite as much practice and clinical observation for an ophthalmologist or a laryngologist to acquire practical ability as for a stomatologist, and the seemingly well-grounded objection to making dentistry a part of medical instruction on account of its essentially practical nature will disappear.

That a student can take the medical degree and become skilled in dentistry in four years has been proved by the many who have done it in so many medical and dental schools during the past fifteen years.

President Eliot struck the right note in his remarks at the meeting of the Harvard Medical Alumni Association, which appeared in the September number of the *Harvard Graduates' Magazine* (p. 58). He says:

"No department of the University can be adequately extended and improved under such a restriction as that it shall teach no more than a fair student can learn in four years. I believe that the instruction now given, at Harvard College, for example, is more than a good student could take in sixty consecutive years, if he devoted himself exclusively to following the courses of the College. The amplitude of instruction bears no relation whatever to a single student's capacity of absorption in four years. Just so it ought to be in a university medical school. There should be an extended instruction far beyond the limits of any one student's capacity. This involves, of course, an optional or elective system within the school itself, whereby the individual student should take what is for him the best four years' work, and the faculty supplying an amount of teaching which it would take a single student eight, twelve, or twenty years to pursue. We must escape at our medical school from this limitation of instruction to a prescribed curriculum suitable for any one student who follows it for four years.

"There would go with this enlargement an expansion of investigation work—of what may be called scientific medical work, or laboratory research—and an increase of the corps of assistants, so that the professors of the scientific subjects might each have a staff capable in itself of extending medical investigation. The graduate department of the school would simultaneously increase.

"And now, a third thing our medical school needs, and should have in the near future, namely, a hospital of its own, wholly under the direction of the teachers of the school."

When this principle is fully recognized, and teaching is arranged to conform to it, all difficulties as to the medical education of dentists will vanish. The large increase of dental students and the extraordinary growth of the Harvard Medical School have again brought to the front this question of the proper education of dentists in Harvard University, and a marked difference of opinion is found to exist. The question has as yet been only fairly recognized as open for discussion. It seems to demand a full consideration.

Shall our medical schools educate dentists as medical men and graduate them as such? Professional medical opinion says, Yes. Well informed public opinion says, Yes. A large number of the dental profession have declared themselves in favor of it, and every friend of higher education and skill admits its desirability. Thus all the signs of the times point to the medical standing of dentistry.

Medical schools should claim it as not only their duty, but their right and privilege, to include dentistry in their instruction. They should reclaim dentistry from the custody of partial culture, as medicine, not many years ago, reclaimed surgery from the ignorant practice of the barber and blacksmith.

The plan should be adopted in good faith to supply a better educated class of men for the practice of dentistry. If done from this motive, it will give the general practitioner much valuable knowledge of which most medical men are now ignorant, and it will direct a large number of capable men into a branch of practice where the emoluments are worthy of their attention, and the responsibilities sufficient to call forth their best efforts.

To me the way is very clear. Once the principle that all medical education need not be identical is acknowledged, and that dentistry is entitled to a standing with other branches of medicine, and the work is done; all details would solve themselves. Dental teachers would furnish special instruction for medical students as medical teachers now do for dental students.

Instead of the present dental degree, some other evidence would be furnished graduates similar to what would be appropriate for each special branch taught. The dental schools should continue

as at present, until the medical students taking that branch become sufficiently numerous to guarantee their successful maintenance; then they would naturally pass under the entire control of the medical faculties and become integral parts of the medical schools, the dental degree would be no longer bestowed, and the mistake of 1839 be fully rectified.

Now, does this optimistic view discredit or belittle the efficient organization of the Royal College of Dental Surgeons and the work of its able and faithful faculty, or lessen the importance of this well appointed building, which is dedicated to-day? By no means. Whichever side may prevail, or whichever plan shall be adopted, here the right thing has been done. If the University shall see fit to fully recognize dentistry as a specialty of medicine, and teach other specialties with the same thoroughness as it teaches dentistry, here stands offered them a fully equipped infirmary, suitable to accommodate not only its dental patients, but a complete equipment for an ear, eye, nose and throat clinic, and with the addition of a hospital ward all cases of surgery, however serious, pertaining to these specialties, can be fully provided for. So long as the present plan prevails, as it must for some years yet, this building and equipment is in the line of the greatest improvement, perfect of its kind, complete for the work it has to do.

The dental profession and the people of Canada owe a debt of gratitude to the band of faithful workers which has conceived this enterprise and carried it to such a successful completion.

Long live the Royal College of Dental Surgeons, and the University, and the Government which has fostered it! And amid our rejoicings, let us not fail to remember that greater Government, the mother of us all, on whose domain the "sun of heaven never sets;" and also to render homage and honor to Her Majesty who, for the longest period in the history of the empire, has been the ideal ruler of this great nation, one in whom the world so much admires the "queenliness of the woman and the womanliness of the Queen." "God save the Queen!" (Applause.)

Dr. WOOD—I find it necessary to make a slight alteration in the programme at the present time. The S. S. White Dental Manufacturing Company, of Philadelphia, through Mr. S. A. Craige, desire, I understand, to make a presentation to the College.

Mr. S. A. CRAIGE—Your Honor, Mr. President, ladies and gentlemen, I desire to read this letter of presentation:

"TORONTO, Ont., October 1st, 1896.

"*Prof. J. B. Willmott, Dean of the Royal College of Dental Surgeons:*

"DEAR SIR,—I have the pleasure to present to your College on behalf of the S. S. White Dental Manufacturing Company, of

Philadelphia, Pa., with their compliments and best wishes for the success of your institution, one of our latest improved Wilkerson dental chairs, with Watkins head-rest ; also, one new style S. S. White ball-bearing dental engine, for the equipment of the College clinic room.

"Trusting the same will be acceptable,

"Very respectfully,

"S. A. CRAIGE."

(Applause.)

Dr. J. B. WILLMOTT, in accepting the presentation, said : On behalf of the faculty of the Royal College of Dental Surgeons, it is with pleasure that I receive this gift from the S. S. White Dental Manufacturing Company, and I can assure Mr. Craige that the valuable appliances will be put to the best possible use for the benefit of our students. This is not the first time we have been placed under an obligation to this firm. I very gratefully accept the donation.

Dr. WOOD—Ladies and gentlemen, I now have pleasure in introducing to you His Honor, the Lieutenant-Governor of Ontario.

His Honor, LIEUTENANT-GOVERNOR KIRKPATRICK, on rising, was received with an enthusiastic ovation. He said : Mr. Chairman, ladies and gentlemen, after the very interesting addresses that we have been listening to this afternoon, I think very little remains for me to do but to perform the formal ceremony of opening this building for the purpose for which it was built ; but before doing that I must ask for a little indulgence so as to say a few words. I must congratulate the dental profession upon this magnificent structure, which has been erected by them for the benefit of those who are going to study the science of dentistry. With the Honorable the Minister of Education, I think that this, the latest comer in the educational family of Toronto, has the spirit of a lusty, thriving infant. I am sure it will be heard of amongst the educational institutions of the country. The distinguished Professor of Harvard University, who has just addressed us in very eloquent terms, alluded to our Gracious Sovereign's long reign. We thank him, as loyal Canadians, for the kindly manner in which he made reference to Her Majesty's long reign. We are reminded of the many wonderful changes that have taken place in science, art, manufacture, commerce, and in every walk of life during the time Her Majesty Queen Victoria has occupied the throne of Great Britain. This very profession, when Her Majesty ascended the throne in 1837, was scarcely known. Some years after there were only five gentlemen practising the profession in Ontario, while at the time she ascended the throne there were probably not any. A few years before this the only qualification necessary for dentists

was muscular strength and manual dexterity. When you went into the dentist's chair, you went in fear and trembling lest the wrong tooth would be pulled. Now you can go into the dentist's chair without any of that fear and trembling ; you can go to sleep, and when you rise you find the teeth that you went into the chair with—ugly tusks, or so-called teeth protruding in every direction, and diseased—have disappeared, and your mouth is filled with two rows of pearly teeth, "a thing of beauty and a joy forever." It is a very important matter for the community to know that diseased teeth is not altogether a local affection, that it proceeds partly from constitutional causes. Diseased teeth affect most injuriously the digestive system ; they affect the health of a person, as well as the health of the community. Every person should get his teeth freed from disease. Science has advanced so now that we have learned men, capable men, skilled men who can perform that duty with little pain and discomfort. It is a pleasure to get into the dentist's chair now and have your decayed teeth removed. I agree with the words spoken by the Minister of Education when he said that the community will be benefited by this magnificent structure which has been put up and which is so complete and replete with every appliance known for the study of the science of dentistry. Those who partake of the benefit of this institution and go out from the College means that they are going out educated gentlemen. We hope that they will be an honor to the institution and maintain its reputation. I am sure we can congratulate the dental profession for what they have done in the past. We look to the gentlemen coming from this institution to maintain the profession, to show to the public the benefit that is derived from this institution, and that they will do what they can towards elevating this profession, as well as elevating their fellow-citizens. I have nothing more to do than to perform the duty that you have asked me to come to do, that is, to declare the building open and dedicated for the purposes for which it was built. I do so most cheerfully, with the best and hearty wishes for its future success and for the future prosperity of the profession which this building will do so much for. (Applause.)

The distinguished gathering then dispersed after the orchestra had played "God Save the Queen."

NEW DENTAL COLLEGE.—ARCHITECT'S DESCRIPTION.

The building occupies a frontage of fifty feet by a depth of one hundred and six feet, and consists of a high basement and three stories. The style is Renaissance and the materials used are Credit Valley brown stone for the basement, Portage Entry red sandstone for the ground story, and the same stone and red pressed brick for the remaining two stories. The ground story is treated with massive ashlar work with rusticated joints. At the west end is the main entrance with a flight of stone steps with handsome balustrades and a hood over the doorway formed by a boldly-projecting dentil cornice, supported by richly-carved corbels. At the east end is an archway leading to the students' entrance and closed by a pair of ornamental wrought-iron gates. The ground story is surmounted by a dentil cornice, and on the first story is an arcade of nine windows with Ionic columns and moulded arches. The second story windows are grouped and have carved projecting sills and moulded brackets. The whole is surmounted by an entablature with a dentil and modillion cornice and a red-tiled hipped roof.

The interior of the building has been laid out with the rooms in such relation to each other as the practical experience gained in carrying on the work of the College has shown to be most convenient.

The basement contains the laboratories for metal work. They have granolithic floors and are fitted with furnaces for melting metals, and moulding and casting tables. Here are also the boiler room, the students' coat room and lavatory, and the janitor's apartments.

On the ground floor at the front are the Board room and reading room, in the rear the large lecture room, seating two hundred, with the necessary appliance rooms, and in the middle of the building is the general laboratory. The students' staircase is centrally situated on the east side, extends from bottom to top of building, and is reached from the street by the archway already referred to. The general staircase is close to the main entrance, and communicates with the rooms to which patients will have access. The first floor is mostly taken up by the operating room and the upper part of the lecture room. The windows in the operating room are so arranged that there is one opposite each operating chair. The extracting room opens off the operating room, and the clerk's room has communication both with the operating room and the students' staircase.

The second story contains laboratories for histology, technique and chemistry, and the small lecture room. Each of the laboratories has been fitted up with the most modern appliances for the particular department of study for which it is to be used, those in the chemical laboratory being the most elaborate, the tables being fitted with slate tops and a sink to each two students, with hot and cold water. Each student is also provided with a cupboard and a drawer for his own use and a special gas tap.

Gas is also led to all the work tables where it is required, and wash basins and sinks are provided for each laboratory, and toilet rooms for the use of the professors on each floor. The blackboards throughout are of unpolished plate glass. The heating is by low pressure steam and there is a complete system of ventilation, fresh warm air being supplied by indirect steam radiators, and the foul air extracted by a large fan worked by an electric motor.

A room capable of accommodating about fifty bicycles has been provided under the staging of the large lecture room.

The rooms are furnished throughout in polished black ash, including the ceilings, and the fittings, the floors, and the work-table tops are of hard maple. The building is so arranged that there is ample daylight in every part of it. The whole work has been carried out under the supervision of the architect, Mr. David B. Dick, who has been in constant consultation as to all technical details of dental work with the Secretary and the Building Committee.

OTTAWA DENTAL ASSOCIATION.

The first meeting, for this season, of the Ottawa Dental Association was held at the Gilmour House on the evening of September 28th. Owing to the absence of the President, Dr. Chas. Martin, Dr. W. A. Leggo, Vice-President, occupied the chair. Dr. Lyon read a paper dealing with the relations of student and preceptor and the present relation of the student to the profession at large.

After the discussion on the paper, the question box was opened and a number of very interesting minor discussions ensued.

Among the subjects were the amalgam question, anæsthesia by suggestion, manipulation of cements, attachment of rubber to gold, ethics, and a number of others. The Association then adjourned until the first Monday in December.

MARK G. McELHINNEY.

Original Communications

INTERESTING EXPERIENCE.

By A. ROSE, L.D.S., Peterborough, Ont.

It is with no little diffidence that I attempt the task of writing a short sketch of what has been to me an interesting experience, for publication in a journal so sure to be read and criticized with so much critical knowledge and ability. Once before I tried to gain the attention of our profession through the medium of one of our professional journals, and after carefully preparing a three or four page article on a subject then being very freely discussed at our associations and in our periodicals, I never since learned whether the editor even took time to read the title. I am now, however, of the opinion that though I may have (?) thoroughly exhausted the subject in a manner to have ended all further discussion of it by the profession, had it been published, the length of the article itself settled the question of its publication at first sight—and forever. This time I shall endeavor in as few words as possible to describe an experience that overtook me a few months ago, and seek from someone better versed in the chemistry of the case an explanation of it. I noticed some few issues back, reported in the DOMINION DENTAL JOURNAL an experience of a peculiar nature in connection with an aluminum crown set with amalgam. The circumstances there described so nearly accorded with an experience of my own that I feel encouraged to report mine also. Having been requested by a lady patient to do something to save the root of a lower right second bicuspid from the necessity of extraction, and as quickly and cheaply as possible, I thought of making a crown of a piece of aluminum tubing about the diameter of the root, trimmed and fitted to it and filled, and cusps built on with amalgam. This I did in a short time, and sent the patient away much pleased with my efforts to replace her lost grinder. You may imagine my surprise when the lady returned next morning with a few scraps of something that looked like acid-eaten iron, about the shape of the piece of tubing used to form the crown, but ready to crumble to pieces in her hand. She said a few minutes after she left the office she felt it getting hot and a boiling sensation about the gum, and then the filling seemed to boil and crumble away out of the crown. I concluded that some chemical action took place on the union of amalgam and aluminum in the saliva around them—but do not yet think I clearly understand the

reason for the occurrence. I set to work again, and with tubing, hammer and anvil soon fitted another band to the root, and this time filled it with oxy-phosphate, and find it giving good service and no apparent inclination to give way at any point. Can anyone give a satisfactory explanation of the destructive agency in the first case? If so, I, for one, will be pleased to consider it, and thank him for his trouble.

SELF-CONFIDENCE.

By E. A. RANDALL, D.D.S., Truro, N.S.

Whenever I hear that expression I am reminded of one of my classmates. He was an honest fellow, a good student and a hard worker, but was deficient in that quality, self-confidence.

He held pessimistic views, and was always fearful of being plucked.

He often said to me, in speaking of graduation, "I'll never believe it until I get my diploma in my hand."

Final examinations were over, and he had passed in every branch. The day of commencement exercises was at hand, and we all assembled at the opera house to receive our reward. The diplomas being still in the hands of the lithographer, rolls of blank paper were substituted for presentation.

In turn, my friend went up to receive the long-coveted prize. At last "he had his diploma in his hand," and his joy was complete, but only for a moment. He peeped inside the roll and saw only a blank. A thousand evil forebodings rushed through his mind. Surely he had been plucked after all, and the faculty, not wishing to hurt his feelings, had allowed him to go through the ceremonies, substituting a blank for his diploma.

And so in that hour, when all others were in the height of enjoyment, our pessimistic friend was in the depths of despair.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

DR. S. O. SAWYER, Traverse City, Mich., drills cavities in artificial teeth without the use of diamond, by pulverizing worn-out carborundum wheels, and using with oil on a small bur, ground to a three faced drill, first cutting out as much as possible with a small carborundum disc.—*Ohio Dental Journal*.

IN the Transactions of the Odontological Society of Great Britain appears Mr. J. F. Colyer's discussion of "The Early Treatment of Crowded Mouths." Mr. Colyer lays down as a starting point his opinion that the earlier the treatment of a crowded mouth is commenced the better, for as time progresses the irregularity becomes more fixed and aggravated, and hence more difficult to treat. If room is made for each tooth as it erupts, the case simply resolves itself into the treatment of a crowded cuspid or second bicuspid, whichever tooth happens to erupt last, instead of long and tedious regulation of the six anterior teeth. As to the advisability of treating irregularity by *expansion* or by *extraction*, Mr. Colyer argues in favor of extracting. By expansion of the arch, the liability to caries is increased on account of increased pressure; plates must be worn for a considerable time, this likewise tending to the production of caries. Mr. Colyer points out as an additional argument that the room gained in expansion is apparent and not real, as a tooth moved by mechanical means moves on its apex as a pendulum swings, so that when a number of teeth are moved in this way, the crowns only are forced outward, leaving the roots in their old position; the almost inevitable result being that the teeth relapse on pressure being removed. Where extraction is relied upon for the correction of irregularities (1) Room is gained not only for the crowns, but for the roots of the teeth; (2) The amount of mechanical treatment is lessened, and in many cases abolished; (3) The pressure on the teeth is relieved and a certain amount of isolation obtained, a condition conducive to the prevention of caries; (4) The bite is less disarranged than with expansion; (5) The teeth invariably assume a better direction. The essayist then for purposes of description divides cases into two classes. 1. Cases where the first permanent molars are unsalvageable. 2. Cases where the first permanent molars are salvageable. In cases of the first class the first permanent molars are kept by some means until the eruption of the second permanent molars. The crowding of the upper and lower incisors is then relieved by the removal of the temporary cuspids. When the bicuspids have erupted, the case of regulating simply resolves itself into finding a place for the permanent cuspid, which is erupting high in the arch. The first permanent molars having been extracted, a plate is placed in the mouth to retain the second permanent molars in position until the cuspid forces the bicuspids back, assisted by the bite. In the second class, *i.e.*, those where the first permanent molars are salvageable, Mr. Colyer advises making space by extracting first the deciduous first molar and then the underlying first permanent bicuspid.

RUBBER DAM.—The unpleasant smell that is noticeable is easily removed, by soaking the rubber in cold water for two or three hours.—*Ash's Quarterly Circular.*

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THE OPENING OF THE NEW BUILDING.

Outside of the question whether there should be a Dental College or not, there can be no doubt that the quarters that have been occupied by the College for many years, while the best that could be done at the time, were neither fitting to uphold the dignity of the profession nor to afford the best opportunities to its students. We therefore take this opportunity to congratulate both the profession and the students upon their new home on College Street. We are sure that the gentlemen who compose the Board have every reason to congratulate themselves on the magnificent results attending their efforts to provide a fitting home for the College. Dr. Husband and his Board deserve the thanks of the profession, and especial thanks are due to the untiring efforts of Dr. Wood, the chairman of the Building Committee. We are sure also that they appreciate the efforts of the Dean, Dr. Willmott. While there are those doubtful ones who feel that possibly the doctor has been instrumental in supplying a little extra competition, yet there are none who will say that he has not always endeavored in every way to uphold, and teach his students to uphold, the dignity of the profession of which he is such an ornament.

There have been misunderstandings in the past, and doubtless there will be in the future, in the relations between the College and the practitioners; but the Board is elected entirely from themselves, so that it is in their own hands to have just such harmony as they please, and it is the sincere wish of the DOMINION DENTAL JOURNAL that all may work in unison to the continued promotion and advancement of the profession.

THE BRIGHT SIDE.

Every cloud has its silver lining, and even the overcrowding of the profession has its compensations. Some time ago two of our many correspondents in Ontario wrote us to say that they were devoting some of their time to general literature, and several others, to market gardening. "Literature," as someone remarked, "leads to everything, provided you leave it," and we were not so sanguine of its paying prospects for those who have been seized with the *cocoethes scribendi*. But the first profession ever established was that in which the first man was the first farmer, and there have been several successes achieved in a small way in several lines of agriculture by quite a number of dentists in Canada, and quite a number in the United States. If the overcrowding increases, most of us will have to pull in our horns in the luxuries of our usual lives, but there is no reason why compensation cannot be found in other directions, which will not divert an established practitioner too much from the routine of dental practice. In fact, we would all be healthier and happier and enjoy better and broader views of life if we had hobbies of this sort. If we look philosophically at the events which happen to us, we would escape many a fit of the blues. That which appears hopeless may be truly a godsend, and the dark clouds of life may be just as necessary to our happiness as those of the heavens are to the fertility of the soil. One of our despondent friends was saved from suicide by joining a bicycle club.

Dominion Dental Journal

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No. II.

Original Communications

THE STATUS OF DENTISTRY.*

By MARK G. McELHINNEY, D.D.S., Ottawa.

Navigators in unknown seas have very frequently to take their bearings in order to get an intelligent idea of their course. We, like them, in navigating our professional vessel through the great unknown sea of time, must sometimes take our bearings also, in order that we may know what course we are steering, and whither we may bring up.

We wish to know whether we shall anchor in that harbor called Success, or, on the other hand, make shipwreck of a noble vessel laden with grand possibilities. Our fate is, within certain limitations, in our own hands; ours are the quadrant and the compass, the lead and the tiller.

The status of dentistry in the professions has never been rigidly defined nor universally recognized.

We are continually being confronted by the question, whether it is a profession in itself, a branch of the medical profession, or a mechanical art.

In naming the leading professions, law, medicine, engineering and theology are nearly always mentioned, but dentistry, except amongst its own practitioners, is seldom added.

Is this because it is included in medicine, or is it because the majority do not consider it a learned profession?

* Paper read before the Eastern Ontario Dental Association at Ottawa, on June 11th, 1896.

That dentistry may lay claim to rank with the learned professions is admitted by all who have knowledge of the educational requirements of the modern dentist.

If a knowledge of anatomy, physiology, surgery, chemistry, pathology, histology, metallurgy, bacteriology, materia medica and therapeutics do not constitute higher education, then is the specialist in medicine in as bad a predicament as the dentist, for the dentist has a knowledge of all these subjects.

The teeth are fully as important to and as intimately connected with the human body as are the ear, eye, nose and throat, and a knowledge of the diseases of the teeth requires as complete an acquaintance with the general system as does that of the diseases of other organs.

At no period in the history of the evolution of the race have the teeth been of such paramount importance, for they of all organs seem to have suffered most from the methods and conditions of civilization. The other organs being more vascular, have adapted themselves more readily to new conditions, suffering little; but the teeth, owing to their greater solidity, have been unable to keep pace with the rapid change of environment.

Other organs for the most part have been required to do a more varied and greater amount of work, which increased use has hastened their development, but the advance of civilization tends to throw less exercise upon the teeth, consequently they weaken and fall into decay. The civilized portion of the race, dazzled by the rapid strides along the line of labor-saving machinery, has in the recent past, taken too extensively to soft and easily prepared foods, for which error the present and rising generations are reaping a harvest of misery.

It is of the utmost importance that the teeth be assisted and preserved through this, the time of their weakness, until more sensible methods of feeding re-develop them to the required standard of excellence.

Owing to the great hygienic and sanitary advancement of the past decade, statistics show that the average duration of human life is slightly on the increase.

This lengthening of life means better average health, and better health means improved development of the teeth.

The preservation of these important organs, until such time as they begin to reap the benefit of improved conditions, is the duty of the dental surgeon.

Does not this vital and most important charge entitle him to the respect and consideration of sister professions?

Does it not entitle him to the confidence of the community in which he labors? Does it not entitle him to a place amongst the benefactors of the human race? The speaker believes in his pro-

fession, in its aims, in its methods, and its great importance to humanity, and also that the day is not far distant when the public recognition will be full and unreserved.

This is what is or should be the status of dentistry, but this is not all. It is necessary that we should know just where we are in the estimation of the public and what means should be used to attain our ideal position.

It is also necessary to be forewarned and forearmed in order to guard against the development of unseemly features in our professional existence.

At present the dentist is recognized as the professional equal of the physician and lawyer by those only who understand somewhat of his acquirements, and who have come into contact with intelligent members of his profession.

To the general public the dentist is simply a "tooth-puller." It is wonderful how many fairly well informed persons there are who imagine that a dentist's chief occupation is the extraction of offending teeth. The fact is that the majority of dentists extract but very few teeth, hardly a greater proportion than of physicians who saw off legs. Amputation of a diseased member, whether a limb or a tooth, is the final resort of the intelligent practitioner.

There are various reasons for the present position of our profession.

Dentistry, as a profession, is young and has not that antiquity which seems to give respectability. The physician is the descendant of the barber, and the dentist of the blacksmith, but the physician sometimes looks down upon the dentist because the barber is more remote than the blacksmith. Law looks down upon both because its origin is still more remote, though just as lowly.

This relative position of things is a necessary and inevitable feature of the evolution of society. It is just one of those peculiar natural laws that go to make life bearable. Jack cannot be as good as his master until he can show his master's attainments and if need be fill his place. Dentistry is a noble profession, full of grand opportunities and glorious possibilities; it is worthy of and shall attain a future as grand as that of any other profession, but the attainment of that future lies in the industry, intelligence and usefulness of its members.

The dentist must make himself the equal in attainment, refinement and intelligence of his sister practitioner, and the recognition will be accorded without the asking. If there rests any onus upon dentistry the blame lies at the door of the man who is retrogressive, churlish, selfish, money grubbing and who stubbornly refuses to put his shoulder to the wheel for the general good.

"Every man is a debtor to his profession," says Bacon, the great philosopher, who preached so much better than he practised.

"Every man is a debtor to his profession." He owes it for whatever honor it confers upon him, and for whatever emolument it brings him. It is his duty to make some return—to endeavor to pay something on account of a debt which he cannot hope to settle. To do this he must fraternize with his professional brethren, give them the benefit of his researches and ideas, assist them to carry on the work of proper organization, and try to leave the world a little the better off for his having been in it. The graduate who buries himself in his office, refusing to aid or be aided, may think that he is showing his independence, but he is in error, he merely proclaims to the world that he is willing to reap benefits unearned, and become a further pensioner upon the labors of his fellow men. The too common prevalence of such men is a heavy drag on progress, and strange to say, that while being borne along on the shoulders of others, they cavil and grumble because things are not absolutely perfect.

There are several causes which combine to injure our profession. First the indifference and selfishness of those who refuse to contribute to the general good by their presence and assistance at our professional gatherings; secondly, those who make everything subordinate to the getting of money by extortion, haggling and cutting according to opportunity; and thirdly, a class, fortunately small, of men who by a combination of causes are pitchforked into a profession whose ethics are beyond their mean conception, and whose ideas and tastes fit them only for a most menial occupation.

From these three classes are furnished the charlatans, cheap jacks and sore-heads. These are the men who reap the benefit of our united labors. This we cannot help. If, in our struggle for higher and better things, we benefit a few that are undeserving we must not begrudge it, for upon them and not upon us falls the dishonor.

Having briefly considered the position which should be occupied by dentistry in the profession, and the position it does at present hold, as well as hinting at the retrogressive elements, it may be well to make reference to some means by which the evils may be lessened and the profession advanced toward that ideal that is ever present to those who have its progress and welfare at heart.

Improvement must begin with the individual, in what manner and to what extent each must decide for himself. Most of the men connected with the various Associations are doing their utmost in this direction already.

The difficulty lies in reaching those who are retrogressive. We cannot address them in the Association, nor have we time to make a personal canvass; besides a personal canvass would make them place too great a value on themselves.

They would boast of their being run after. The only means of reaching them is through the general public. We should have a

definite policy of education, which, carried out, would enable the public to discriminate between deserving and undeserving practitioners.

The public is fairly well educated to the claims and necessities of law and medicine. This is greatly due to the already extensive popular medical literature and to the frequent public lectures on medical subjects. The public, by getting an idea of the extent and difficulties of the subject, soon place confidence in and value upon the practitioners of that branch.

Popular dental literature is very restricted. It consists mostly of ephemeral pamphlets published by private individuals.

What is required is a systematic popular propaganda of dental education. This work should have the authority of the Dental Association, and be strictly non-advertising, except, of course, for the profession at large.

The great need of dental inspection in the public schools should also be emphasized. That children's teeth should be in good order is fully as important as that they should be vaccinated. Non-vaccination invites but one disease; bad mastication invites hundreds.

It is said that the profession is overcrowded. There is work for twice as many if fifty per cent. of our people paid proper attention to their teeth. The present supply of dentists is up to the demand for services. The supply of dentists is on the increase. We cannot restrict this supply, but we can increase the demand by educating the people to their necessities. One man cannot do this, nor can two, nor even half a dozen, but a combined effort on the part of the whole profession in Ontario can accomplish wonders in a very short time.

Once the public becomes fully aware of its importance, attainments and objects, there will be no question of the status of dentistry in the professions.

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

To neutralize nitrate of silver when accidentally applied to soft tissue, use common table salt.

FOR sterilizing cavities before filling, wash with antiseptic pyrozone, which is also an excellent bleaching agent. Always use a rubber dam and neutralize with ammonia or solution of bicarbonate of soda.

CAMPHO-PHENIQUE, confined under a temporary filling for a few days, is a valuable application for sensitive dentine.

To line red rubber plates with black, coat the cast three or four times with black rubber solution cut in chloroform, allowing each to harden before the other is put on.

FOR the protection of cement fillings, resin and wax in equal parts, melted on spatula and poured on the filling before it is wet, is superior to either wax or paraffin.

TO renovate dirty wax : Melt in water ; when cool scrape the dirt from the under side ; melt again in pure water and add one tablespoonful of sulphuric acid when it comes to a boil.

EUROPHEN and boracic acid in equal parts makes a valuable dressing in the treatment of pyorrhœa, alveolar abscess, necrosis, or for any suppurating surface. Either powder or mix with glycerine to form a paste.

A SOLUTION of hyposulphite of sodium in water will remove iodine spots from linen, cloth, skin, in fact, from everything, almost instantly. The fresher the spots the quicker the action of the hyposulphite. This may be a welcome item to some.—*J. C. Emmerling.*

USE zinc sulphate in the treatment of pyorrhœa, after thorough cleansing of pocket and roots. Warm beeswax in warm water and incorporate zinc sulphate to form a paste, with which pack the pockets and leave several days. As the pockets fill in with granulation from the bottom the plug is forced out.

TO fill artificial teeth with gold, instead of drilling a cavity, which weakens the tooth, take an impression of the tooth to be filled in modelling compound or clay ; get die and counter with low fusing metal ; use thirty to thirty-two gauge gold ; stamp gold and adjust the swaged piece, letting the edge of the gold extend into the wax ; pack and vulcanize as usual, then finish and burnish the gold well to the tooth. The result is artistic and satisfactory.

DR. OTTOLENGUIE method for mounting Logan crowns : Prepare root and crown as usual ; take pure gold plate thirty-four gauge, about size of root ; form a hole for the passage of the pin ; fill the hollow space in the crown with gutta percha ; place the disc on the crown and press both disc and crown to place on the root. The excess of gutta percha will indicate any imperfection in the adaptation, and will also press the disc firmly against the root, leaving an imprint of the root on the disc ; remove the crown and disc ; trim the disc to the root, and then trim crown to the disc ; set as usual.

To remove the black grease from the hand after handling flasks, use a small quantity of spirits of turpentine. Rub this well all over the dirt, then wipe with dry cloth, then use soap and water. After drying, use vaseline or glycerine. I have found this to be an excellent remedy. Try it.—*J. H. Drexler.*

EUCAINE.—Under this name a new substitute for cocain has been brought out by a Berlin dentist named Kressell. It is prepared synthetically, and chemists describe it as “a methylo estero of benzo-gloxy piporidine carboloxylic acid.” It is claimed for it that it does not affect the heart, produces more extensive anæsthesia than cocain and is non-poisonous. Probably it will also be much cheaper.—*British Journal Dental Science.*

TOOTH POWDER.—Dr. N. R. Morton, sen., recently presented to the Stomatological Club the following formula for a tooth powder of his own composition, which he claims is non-injurious to the enamel :

R Precip. chalk,	-	-	-	-	-	-	6 oz.
Pulv. cast. soap,	-	-	-	-	-	-	2 oz.
Pulv. borax,	-	-	-	-	-	-	2 oz.—M.

Add perfume and sugar to sweeten.—*Pacific Stomatological Gazette.*

SULPHURIC acid in the treatment of opening root canals has proven itself to be a most valuable agent, and to Dr. Callahan are we indebted for its introduction. His method is to adjust the rubber dam, dry out the cavity, remove contents, place a drop of 40 or 50 per cent. solution in the pulp chamber, take a discarded Donaldson broach, and with pumping motion enlarge the canal or canals, washing out frequently with a solution of bicarbonate of soda until the apex is reached. You can fill immediately. Should you have an obliterated canal, seal a drop of acid in the cavity for ten or twelve hours. When opened again and dried the canal can be easily located. Do not use the broach a second time.

To line rubber plates with aluminum, roll the aluminum to twenty-eight gauge, anneal the metal with a blow-pipe until it becomes white like unburnished silver. Thoroughly dry the cast, then with the two thumbs press the aluminum on the cast and burnish it to place, commencing in the centre and working toward the edge. Prepare for adhesion of the rubber; use a chisel and carve the plate, making small hooks about one-thirty-second of an inch long, in rows; then reverse the rows, turning the hooks in opposite directions until the surface of the plate is covered; anneal again and adjust the cast; wax teeth in place as usual and pack. The pressure under the press will make a perfect adaptation of the aluminum to the cast.

Proceedings of Dental Societies.

On account of several of the staff of the Dental College of the Province of Quebec signing a petition to the Local Legislature, to give licentiates the right to hire assistants, to have the full privileges of a registered practitioner, even in the absence of the latter, the Dean of the Quebec College sent the following letter to the President of the Board :

S. Globensky, L.D.S., D.D.S., President of the Dentists' Association, Province of Quebec :

DEAR SIR,—I beg to hand you my resignation as a member of the Board of Examiners of the D.A.P.A., and as Dean and Professor in the Dental College.

A very few of us have given more than the leisure of half a lifetime to legislative and educational efforts in the interest of the profession and the public. It is a work that has not been obtruded upon the public eye, or solicited the public purse ; but it has been faithfully and unselfishly done all the same, and the public have got the benefit. Many who could find time from practice for all sorts of civil and social engagements, could spare little or none in the political or scientific interest of their profession, and the labor on the part of a few has not met with that co-operation which even the busiest of men ought to give. From time to time, for the last twenty years, we have had so much fractious litigation and factional legislation, opposed on every occasion by the mischief-makers, who are to be found in all professions, that, for my part, I am heartily sick of it, not only because of the selfishness of those who have brought it about, but almost as much because of the complacent indifference of those who are debtors to their profession quite as much as we are, and who, while careful to avoid the wounds of the warfare, were glad to get the benefits.

My chief reason I shall frankly avow. Some time ago, a so-called "assistant" in this city was convicted and fined in the Police Court for a certain breach of the Dental Law. His late employer is about to present a petition to the Legislature to have just such illegality legalized, so that the public may have the questionable privilege of being served in the dentists' offices, as they are now served in the barbers', by "assistants," whose qualifications, in the case of foreigners and non-residents, are not to be tested by the Provincial Board. It is not only sought to obtain the right for the hired

parties to act in the presence of, but also "in the absence of," the licensed practitioner, so that the dentist himself might altogether desert his practice, and under the cover of his license hand his patients over to a salaried assistant. It is also sought to obtain this right without any matriculation examination, and without exacting any of the obligations which for twenty years have been imposed upon our own registered students. In the interest of the work we have done in this Province for so long a time for the better education of students and a better service to the public, I consider this movement the most dangerous of the several obstructive measures with which we have had to contend. If a licentiate has knowingly instigated the evasion and breach of the present law, it would surely be curious justice in Quebec that would reward him by legalizing that which the courts had proved to be illegal. It is a most ingenious idea of jurisprudence, surely, that would make the crime of yesterday the prerogative of to-day; and if it could only be extended sufficiently in its application, by petition, it might even empty the penitentiaries. The legislation asked for on behalf of irresponsible assistants would be an immediate damage to the French and English students of Quebec, who are now complying with the law, as well as to those of us who do not believe in the principle of handing over our patients to assistants who are unable or unwilling to submit to the requirements of the Provincial Board. It would open the way for fresh infractions. The men who stretched the interpretation of one law to its breach would not hesitate to do it again. It would place the public at the mercy of a class upon whom the governing body of the profession have no check, and would exempt them from the penalties to which we, as established licentiates, are subject for certain unprofessional conduct. It would leave to the employer of these salaried assistants, even if he were a quack or one who resorts to quack methods, the prerogative of judging qualifications for practice which the Legislature has, since 1868, confided exclusively to the elective Provincial Board.

It has been enacted for over twenty-five years by the Legislature that no one shall practise dentistry in Quebec in the way the petition implies unless he has passed the required examinations; and it is now further compulsory that all applicants must attend the Dental College. I fail to see why these conditions should be imposed upon our own indentured students who have passed the severe matriculations and completed the course, and withdrawn from those who are unwilling or unable to do so. In this question, even the possession of a foreign diploma is well-known to be no proof of a proper qualification. That is a well-established fact in Quebec. If any dentist finds that his practice is too extensive, or that he cannot himself do certain work, he may hire assistants to do it, or if he prefers trading horses to practising dentistry,

he should be influenced by the same ethical spirit which animates the medical and legal profession under like circumstances. Instead of paying a paltry salary to some impecunious assistant, he can get a skilled partner, or he can engage our own registered students, who are entitled to preference if anyone is to be engaged. It would be a remarkable thing in medical practice if a physician's patients were exposed in his office to transference to unlicensed practitioners. It is, within the limitations of dental practice, as dangerous in dentistry.

Moreover, in the case of a profession such as ours, which deals with dangerous poisons, and which by neglect or ignorance exposes its patrons to the consequences of unclean and ill-treatment, the public has a right to demand that assistants as well as registered students should submit their qualifications to proper test, not in Chicago or Hong Kong, but in the Province of Quebec.

These are my convictions. I am sure they cannot be acceptable to my confreres who have signed the petition, and as I find on the list of names those of several gentlemen with whom I am associated in the educational work of our Province, I take it for granted that my convictions in their opinion are wrong, and therefore I feel bound to resign. When I find it necessary to hire salaried assistants to do my business, I shall resign practice, too.

W. GEORGE BEERS, L.D.S., D.D.S.

Montreal, October 26th, 1896.

As soon as the signers discovered the true purport of the petition, they sent the following protest :

To the President and Members of the Board of Examiners of the Dental Association of the Province of Quebec :

Having been led by misrepresentation to sign a petition to the Legislature, referring to dental assistants, we, the undersigned licentiates of the Province of Quebec, demand the withdrawal of our names. We are utterly opposed to the objects of said petition, believing it would have a tendency to expose the public to abuses, over which the Board of Examiners would have no control :

Wm. F. Giles, C. F. Morison, Louis Franchere, Gaston Maillet, T. D. Tansey, J. S. Ibbotson, A. F. Ibbotson, E. R. Barton, N. Fisk, W. J. Kerr, H. H. Kerr, P. P. Vosburgh, F. X. Seers, L. P. Bernier, L. E. Mauffette, W. E. Bourbonnais, E. Larose, J. P. Cadieux, J. B. C. Trestler, E. M. Gravel, R. Simpson, G. W. Oliver, C. M. W. Rondeau, James M. Shaw, A. Clifford Jack, Arthur Lemieux, Gustane Lemieux, F. D. Mongeon, Albert Dumong, Joseph R. Lalonde, J. G. A. Gendreau.

Selections.

HYGIENE.*

BY T. E. POWELL, D.D.S., Chicago, Ill.

There are few vocations which try the endurance of man, physically speaking, to a greater degree than the practice of dentistry. The dentist is closely confined to the office during that part of the day which could be most beneficially and pleasantly spent in the open air. Not only is he confined to the office during this period of sunshine, but his mind is intensely occupied with difficulties which require his earnest and most painstaking efforts to overcome. The concentration necessary to the satisfactory execution of gold fillings, crown and bridge work, etc., etc., would seem to exhaust the nervous force of a robust man; but, in addition to this, the dentist must soothe nervous and frequently hysterical women, and manage children who have been prepared beforehand by tales of pain inflicted, which are equalled only by tortures conjured in the minds of North American Indians of two hundred years ago.

Having worked all day under such trying conditions, how many men are fit for anything except the bed when night finally does come?

Not long ago a lady came into my office and said she had always gone to a certain very busy dentist, but he had become so cross that she could not stand it any longer. Said she: "He is so irritable, I don't see how any one can endure his bad temper."

Notwithstanding the constant strain on our nerves, and the positive certainty of either an early grave or permanently impaired health, we drive along, day after day, with little or no effort to counteract the effects of overwork by pleasant and healthful recreations, or any consistent observance of the laws of hygiene.

Webster defines hygiene as "a system of principles or rules designed for the promotion of health;" also, "that department of sanitary science which treats of the preservation of health."

In this paper, I shall endeavor to offer some suggestions which will, I believe, if followed by members of our profession, do much toward the maintenance of a perfect mental and physical equilibrium.

Let the first consideration always be that of good ventilation. Be sure that there is plenty of fresh air in the room all of the time.

* Read before Hayden Dental Society, September 21st, 1896.

There should be no direct currents or draughts. The windows ought to be so adjusted that the air may enter and circulate without disturbing any light substance in the room.

In order to accomplish this the windows must be opened from the bottom and a guard placed in front of the open space, so as to direct the air toward the upper part of the room.

Even in the coldest weather this may be done without any discomfort, provided the room be properly heated, and the heat should always be regulated with a view to proper ventilation.

A thermometer is indispensable if perfect ventilation and a normal temperature are desired. Nothing has a more depressing effect or causes such a marked irritation of the nervous system as an overheated, poorly-ventilated room.

In reference to work at the chair, one should try to keep an erect position. If any one must assume an unnatural position, let it be the patient.

Manipulate the chair instead of the spinal column. Learn to work with the glass instead of crouching as if about to spring upon your prey. Avoid the patient's breath if possible. The adjustment of the rubber dam mitigates this evil. Do not hurry; do not worry; but do your work calmly and deliberately. Allow your patient's excitability to increase your imperturbability. Nothing will deepen the furrows in one's face or bring on physical wreck more quickly than fretting or worrying. Do not give appointments for trying operations during the later hours of the day, when you are all tired out, but try to arrange to have the easiest work come during the last two hours.

Use an antiseptic solution on your hands after washing them, as it is not safe to depend on soap and water. It has been thoroughly demonstrated that soap and water will not remove diseased germs from the hands, however carefully you may wash them. How frequently operators may be seen using their teeth as a receptacle for instruments while operating. Such instruments, for instance as the mouth mirror, gold pluggers, foil carriers, etc.

The danger of this practice is apparent. We are too careless.

Carelessness frequently costs a man his life. Let us watch these points. Good men are scarce.

There are many other things I might suggest in this connection, but the length of this paper will not permit.

I want to speak of some things we should do outside of the office.

Some do observe religiously many of the points mentioned above, but make no effort whatever to keep the body in perfect health by using, outside of the office, some of the numerous means by which the health may be maintained.

There is such a diversity of ways by which we may gain the necessary amount of recreation, that it is useless for me to

particularize. My aim is to emphasize the necessity for this recreation, rather than the manner in which it is obtained.

Every animal requires a certain amount of sunshine and fresh air, and man is no exception to the general rule. There is no reasonable excuse for the neglect of this side of one's nature, when any one can have for a mere pittance a trolley ride, or a walk in the park free gratis. If neither of these suits, there is horseback, carriage or bicycle riding, ball, tennis or croquet playing. These, and the many additional diversions which the ingenuity of man has furnished, would seem to provide means by which an earnest seeker for health may be gratified.

When we have done with the physical, much remains yet to be attained. The mental nature, like the physical, must have a diversified field of activity in order to have that roundness of form and elasticity of fibre, which is so much admired and desired. The desire to become a mental gymnast is father to its accomplishment.

We must not, of course, neglect our own field of literature; but the truly ambitious mind will not be satisfied with this. Scientific and secular literature can be obtained in such abundance at prices within the reach of all, that he who hungers may be filled. There are the daily papers which give us all of the current news of political, business and social life; and the magazines which teem with articles more or less patent to every walk in life; articles, some of which are learned and intellectual enough to please the most profound; others, which the most superficial reader may characterize as verbose. But the rule for the busy man should be to use that which will give the most pleasure and at the same time yield the largest amount of instruction. It should ever be our aim to improve the mind, and to do this much judgment is required in the choice of reading matter. The study of scientific matter probably gives a better return for the amount of time expended than the study of either art or literature, and it has the additional advantage of being particularly helpful to us in our special work.

In closing, I desire to speak of moral hygiene, so much neglected and yet so indispensable to the fully rounded, thoroughly reliable professional man. We cannot stand still in any part of our natures; we must progress or retrograde, and it will surely be the latter unless an effort be made toward the former. No man can do his best unless the spiritual nature which dominates all the rest is in perfect health. This condition of moral health may be preserved without allying one's self with a religious organization, but it cannot be either acquired or maintained without a constant effort. A system of principles or rules which will best promote this ideal condition must be formulated by each one for himself. No set of ready-made rules will answer the purpose. The public expects us to be above reproach, and unless the interior is clean,

the exterior must, sooner or later, give evidence of the true state of things.

I have tried in the paper to show what hygiene means as applied to dentistry, as viewed from my standpoint. Much more might profitably be said, but if I have awakened sufficient interest to provoke a lively discussion, I shall feel amply repaid for my trouble.—*Dental Review*.

GINGIVITIS.*

By L. L. DAVIS, D.D.S., Chicago, Ill.

In selecting this subject as a topic for discussion this evening I had in mind a paper by Dr. W. A. Mills, of New York, read by him at the union meeting of the Washington City Dental Society and the Maryland State Dental Association in April, 1895, on "The Toxic Effect of Quinine on Gum Tissue," in which he says: "The first condition to attract my attention was the peculiar anæmic and frozen-like appearance of the gum, especially that portion filling the gingival spaces." He proceeds to state that on close examination no attachment whatever of the gums to the teeth from the cervix down to the alveolar ridge could be found, although apparently there was no separation, owing to the gum hugging the teeth closely.

The general condition of the mouth in the primary stages of this disease is the cleanly and apparently healthy state of the teeth and surrounding parts; but as the disease progresses there is a wasting and contraction of the tissues surrounding the teeth which eventually terminates at the alveolar border. All signs of wasting then disappear, leaving the teeth clean and apparently elongated. During the entire progress of the disease there is at no time any pus formation, as in pyorrhœa, no congestion of the tissues, no calcareous deposit of any kind; no sense of pain or tenderness in teeth or gums, the patient being unaware of any abnormal condition.

He thus calls our attention to a new dental lesion not heretofore described in dental literature, and then as the result of his observation advances the theory, "the habitual use of quinine without the advice of physician or dentist" as the cause. He says all the well-defined cases were found in mouths of patients of nervo-bilious temperament, ages ranging from eighteen to thirty years, and that all were chronic sufferers from neuralgia, colds, malaria and general debility.

* Read before the Odontological Society of Chicago.

Dr. Mills' paper describes a condition of the gums that has been noticed by the essayist a number of times, but in patients of a totally opposite character from those Dr. Mills described, and the cause ascribed to an entirely different source.

Dr. Mills fails to state the sex of the twelve cases observed by him, and therefore our comparison in this respect cannot be made.

No regular data has been made of the cases observed by your essayist except during the last few months, and this is the result :

A. B., male ; age, thirty-eight ; large and well-formed ; active ; teeth with few cavities ; gums blanched, firm, but receded considerably from enamel margin, and seemingly tightly attached, but scaler shows that there is no attachment to teeth except to labial surface of right superior cuspid ; recession more marked on palatal roots of right superior molars and left inferior molars ; very marked on left superior and inferior cuspids and incisors ; mucous membrane of palate white and hard, with rugæ strongly outlined ; a few nodular eminences with bright red centre on the right side of hard palate, tongue whitened, but with fungiform papillæ strongly marked.

History. Health always good ; outdoor occupation ; seldom had a cold, although there was evidence of mild catarrhal trouble ; an inveterate smoker, smoked from ten to fifteen cigars a day, and sometimes a pipe at home ; cleansed his teeth twice a day, and saw a dentist every year ; very little salivary calculus, and only on lower anterior teeth and upper molars, but almost a black covering on the exposed roots, especially on palatal surface of superior and lingual surface of anterior inferior teeth ; seldom took quinine.

X. Y., male ; age, twenty-two ; well built, but a trifle slow in action ; teeth of good character, except first molars ; gums whitened and hard, with a marked stippling ; gingivæ of the anterior teeth on right side showing most strongly the nonattachment to teeth, also the gums near palatal root of superior first molar on left side ; some salivary calculus on lower anterior teeth, very little on molars ; superior teeth blackened on palatal side ; calculus black and hard on the lower teeth.

History. Smoked a meerschaum pipe nearly all the time in office, and held it between the cuspid and lateral on right side, so the smoke could not then get into his eyes when writing. No malaria ; had a cold once in a while ; took quinine sparingly, and hot whiskey often when he did have a cold.

J. L., male : age, fifty-four ; lake captain ; seldom went to the dentist ; calculus on nearly all the teeth ; roots exposed and black, gingival or interproximate space large, slight reddening where

calculus was present ; gums hard and white, tongue also white, except where the fungiform papillæ showed ; pyorrhœa present at inferior left central lateral and cuspid, also marked on palatal and proximate side of superior lateral and cuspid ; buccal surface of roots of molars on right side decayed and blackened ; smoked considerably, holding cigar or pipe on left side of the mouth ; chewed when not smoking, and usually held quid on right side ; took quinine when he thought he needed it, but not frequently, usually in 3-grain doses at intervals for twenty-four hours.

These, together with observations made other times, has led the writer to infer that the wasting of gum tissue or recession was probably due to the extreme use of tobacco, with possibly an inherited tendency to gum absorption. It is evident that there is no pain or inconvenience attendant upon the disease, for as a rule the patient comes for services in the nature of filling, and is not suspecting a new disease to be sprung upon him. The total absence of malaria, general debility, etc., in these cases, and the sparing use of quinine, certainly cannot warrant the assumption of quinine poisoning ; and from close questioning nothing can be deduced that would lead one to suspect mercurial poisoning, for, as Dr. Mills has observed, there is no wasting of bone tissue or loosening of the teeth (except the one case cited with pyorrhœa present). Many times the patient may be wrongly suspected of mercurial poisoning, when other causes prevail. One patient, at present, under treatment for gingivitis, a neurasthenic female, age, twenty-nine, recently presented with mucous membrane of both upper and lower jaw a brilliant red ; the slightest touch caused the blood to flow, and hence the disease was aggravated by the presence of decomposing food particles and mucus upon the adjacent teeth, through the patient's unwillingness to thoroughly cleanse the teeth ; the gingivæ between the lower cuspid and lateral on left side swollen considerably, and detached from the teeth ; only very little calculus was present, and the disease not present on the lingual aspect, nor were the gingivæ detached or swollen to any great extent on the other lower teeth ; pyorrhœa was present at the palatal and proximate sides of the superior incisors and cuspids ; ptyalism is quite marked. The cause in this case is undoubtedly pregnancy.

Before closing, one other case, the cause not so clearly defined, in a male ; age, twenty-one ; of fine physique : good habits ; his family physician a personal friend of mine, so that I could have readily obtained any history of taint—presented with gums apparently normal with the exception of those of the eight anterior teeth of upper and lower jaws ; slight deposit of calculus, but not sufficient to warrant my ascribing the disease present to this cause. The gingivæ between each of these teeth had sloughed,

leaving the gum tissue in an almost straight line for the anterior teeth, with very little swelling or redness except at gum margin. The trouble responded readily to treatment with nitrate of silver and the constant use of a mouth wash.

The many forms and causes of diseases of the gums require careful tabulation, and I present these cases hoping to draw out a good discussion, so that we may all benefit by it.—*Dental Review*.

HOW WORRY AFFECTS OUR BRAINS, AND HOW TO STOP IT.

Worry will kill!

Modern science has brought to light nothing more interesting and useful from the standpoint of science than this fact, and, more remarkable still, it has determined and can give in full detail, because of recent discoveries, just how worry does destroy the nervous system.

It is believed by those who have followed most carefully the growth of the science of brain diseases—that scores of the deaths of each year, deaths set down to other causes, are due to worry, and that alone. The theory is a simple one. It is so simple that anyone can easily understand it. Briefly put, it amounts to this: That worry injures beyond repair certain of the cells of the brain; that the brain, being the commanding centre of the body, the other organs become gradually injured, and some diseases of these organs or a combination of them arising, death finally ensues.

Thus does worry kill. Insidiously it creeps in upon the brain in the form of a single, constant, never lost idea, and as the dropping of water over a period of years will wear a groove in a stone, so does worry gradually, imperceptibly, but no less surely, destroy the brain cells that control and enervate and keep in health every other organ in the body.

Worry, to make the theory still stronger, acts like an irritant at certain points, and, if long continued, produces serious results, but produces little harm if it comes only at intervals or occasionally. Occasional worrying the system, the brain itself can cope with easily. But the iteration and the reiteration of one idea of a disquieting sort the cells of the brain cannot long endure.

It is precisely as if the brain was struck lightly with a hammer every few seconds, with mechanical precision, for days and weeks, with never a sign of let up or the failure of a stroke. Such a succession of blows from a hammer would, of course, injure the brain irretrievably almost immediately, but it helps to illustrate the idea and make it more vivid.

For just in this way does the annoying idea, the maddening thought that will not be done away with, strike or fall upon certain nerve cells, never ceasing, and week by week diminishing the vigor of these delicate organisms that are so minute that they can only be seen under the microscope.

"Any one-sided work or effort," says Dr. Jacoby, "is deleterious, is harmful. A person worries on a single subject the same as people frequently overwork certain muscles. But in the former case the worry is constant.

"Now, the concentration of painful thought long continued not only tires out the nerve cells that are being used in this constant worry, but the other nerve cells which are not used at all, lie, so to say, dormant and waste for lack of sufficient exercise. This is the first principle. In corroboration of this it is a well-known fact that a person who gets ill from worry continues to worry over that one thing, broods over it, lets it absorb him and his thoughts to the exclusion of all his other interests, bringing into play, it is supposed, continually the same set of nerve cells. It is the same as if a man used one muscle or one set of muscles continuously, only the effect on the nerve cells is far worse.

"This is the reason why a brain will wear out far more quickly under worry than under work, there is an attenuation of exercise and repose. There must be a judicial alternation between the two. All parts of the brain must be exercised, and then allowed to rest.

"The cells that are affected by worry are those in that portion of the brain that preside over the intellect, the cortex of the frontal lobes or the upper layer, this lying directly under the upper part of the forehead, where the hair begins in the average man, or possibly a trifle above that.

"It is wonderful the amount of work a brain can stand if it is given proper intervals of repose. I don't believe a brain ever broke down yet from overwork. Many have from worry.

"The 'worry,' the thought, the one idea grows more and more on the person as time goes on, until finally he is unable to throw it off at all. It haunts him at all times, and he cannot will it away. It takes possession of him in his subconscious hours, and clings to him even in sleep. He dreams of it each and every night, and wakes up to have it on his mind again on the moment.

"Through this the mind wears out in one direction, one set or area of cells are affected. In some men it might be one set, in others another. As to that science does not know. But it does know that it practically destroys one set of nerve cells. Now these cells are related or connected, not only together by little fibres, but these cells of the intellect are joined, too, by a network with the cells of the other parts of the brain. So, if one part of the mind wears out one set of cells, all the mind, and eventually

all the body, is affected, the brain being the commanding centre, for the chain is as weak as its weakest link.

"The effect on these nerve cells is probably a chemical one as well as mechanical. In consequence, or as a result of work, what are known as 'fatigue products' are formed in the cells. These are poisons, and the German scientists call them 'Ermudungs Stoffe.' Under normal conditions, that is, when they are the results of work, not continued worry, these poisonous 'fatigue products' are thrown off by the cells themselves during the periods of rest and relaxation.

"It has been conclusively proved that these 'products' produce direct microscopic changes in the nerve cells. The theory is, that if they are quickly thrown off, the cell returns to its normal condition; but if left there by the cells, being unable to perform its proper functions, the poison becomes fixed. The changes these 'fatigue products' bring about were shown by Hodge in this country in a series of experiments he made with swallows. He carefully examined the cells of the spinal cords of birds who had just been flying long distances, and side by side with these put under the microscope cells of the spinal cords of birds that had not been out of their cages at all. He found decided differences in the two sets of cells, thus proving clearly that physical fatigue does produce microscopic changes in the cells of the spinal cord.

"Now, it is quite impossible, of course, to get evidence of mental fatigue in the brain of an animal, and the nervous cells of the brain of a man can hardly be examined under the microscope after he has been exerting himself mentally in any way; but the supposition, is that mental fatigue in the cells of the human brain produces changes. These 'fatigue products,' as has been already said, are known to be poisonous.

"The whole nutrition of the body is dependent on the normal action of the brain. In time these cells, acted upon by poisons so that they are given no opportunity to throw off, become decadent; they lose their vitality, and, doing this, affect the cells near them. In the body the effect is shown in this way; the body itself commences to fail. The man cannot eat and cannot assimilate. The brain is intimately connected with each of the other organs, and one of these, or perhaps more than one, being imperfectly nourished and provided for, falls into some sort of local disease. Of this the man dies. His death is ascribed to the local disease, but it was worry that brought it about.

"To explain this matter of worry still further, I might say that there are three different kinds of irritation that could destroy a brain cell. They are mechanical, electrical and chemical. The changes in the cells just described are brought about by nothing

more or less than chemical irritation. The action of the hammer, suggested by way of illustration, is purely mechanical, for example."

Little is known about thought and perception, judgment, reason and their attendant senses, except that they are all laid directly behind the frontal bones, and that it is here that the will power is generated, to be telegraphed into every corner of the body. These cells here, some of which seem to be constantly in service, others only at times, are really the most important in the brain. They are the seat of the mind, and it is these, and these only, that the malady of "worry" strikes at to kill.

A man may worry, it is true, for years and there may be no very serious results. A woman may fret on and on, and still keep fairly well. But there is always the danger of "possession" of the "one idea," suddenly grown to be dominant, mastering the will power and paralyzing, as it were, the working of the system.

Death does not, in a large proportion of cases, result. A man or a woman may be sick almost to death with any disease, and yet not die. "Worrying," as a disease of itself, has other dangers. Such a thing as a partial injury is possible—an injury to the brain cells that will not kill, but will bring discomfort and weariness and incapacity to do good work, think good thoughts, or correct ones, form good judgment, and this is almost as bad as death itself.

Now that the scientists have expounded the philosophy of worry, it will be seen that it is as dangerous as an electric battery, and should be carefully avoided. It is good, at least, that one of the "ills that we know not of" has been made manifest.

HOW TO ABOLISH WORRY.

How can worry be abolished? That is the question which we propose to answer. Simply drop the morbid idea that causes it and put in its place a true thought. Let go of it! If it comes back again kick it out as you would a robber entering your room. Whenever it appears drive it away. Stamp your feet on the floor. Clinch your fists if it needs be, but in some way oust it. Do not let it have possession of the chambers of the mind, to leave its evil effects. But do not fail to put other ideas, other thoughts in its place. If not, other and perhaps worse ideas involuntarily come in and fill the void, and the last state of the person may be worse than the first.—*Journal of Hygiene.*

THE TOOTH-BRUSH.

By E. C. MOORE, D.D.S.

After promising *The Odontoblast* a short paper for its initial issue, I began to think of some important subject upon which to write. Naturally, the editor would think I would choose a subject within the realm of mechanics so far as it relates to the mechanical laboratory, but as I am considered something of a crank on the subject of tooth-brushes among my patients, and of which title I am rather proud, it occurred to me that I would, in the hope of doing good, carry my crankiness a little outside of my practice and endeavor to impress the readers of this journal with the important office of the "tooth-brush," and if I succeed in that, they are in a position to carry the war still farther into Egypt.

It has been said that "the pen is mightier than the sword," so I will say that the tooth-brush is mightier than the excavator and plugger. Now, while I verily believe this, I am at a loss for language to sufficiently and forcibly impress the readers of *The Odontoblast* with the importance of the proper tooth-brush, properly used. "Ah, there's the rub;" proper brush, properly used. The proper brush is the one which will, by its shape, reach as nearly as possible all parts of the mouth and all parts of the teeth in the mouth. By its shape, I mean the shape of the handle or that part into which the bristles are set, the arrangement of the bristles themselves and the strength or stiffness of the bristles. The handle part should be a little curved in shape, the bristles being on the inner side of the curve and set in tufts, not close together, and because of this fact they should be very stiff, the writer preferring the unbleached bristle when he can get it. All brushes grow less stiff after being put into commission, and this is the very reason they should be stiff to start with. This and the fact of not being set closely together is another very good reason for not setting the bristles compactly in the brush. The fact of such a brush becoming very filthy, anyone may convince himself of by taking one of these brushes after it has done duty a few months; by parting the bristles and looking closely into it, it is just like parting the hair on a dog's back in flea time. You don't see the fleas quite so plainly, but they are there just the same, armies and myriads of them. With open brush this condition does not exist, because the construction of it allows of thorough washing and a thorough circulation of air, and consequently a thorough drying of the brush and return of a rigidity of the individual bristle and series of bristles. The curved shape of the handle is for the purpose of

bringing the brush end more easily under control of the hand while using. At the extreme end of the brush a larger and longer bunch or tuft of bristles should be placed, enabling the user to reach more effectually the palatal and lingual portions and surfaces of the teeth, as well as the posterior aspect of the molars. So much for the shape of the brush. The "Prophylactic" nearer meets the requirements in shape than any other brush known to the writer, but the quality of bristles falls short of meeting the requirements.

The brush, like many other good things, is deserving of care, and it should always be thoroughly washed in running water if possible—the water forced out by drawing the thumb over the bristles, and after that dried upon a towel. Three of these brushes should be in use, as it were, at a time, and consecutively, thus allowing in the interim sufficient time to dry the bristles, making them more effective in their turn for use.

Thus far the easiest part of my task is performed, that of describing a good and effective form of tooth-brush and in speaking of its importance; but to impress those who may chance to read these lines, I hardly know how to choose words and frame sentences of sufficient force to make them understand my sincerity and the importance of the tooth-brush when thoroughly used. All the dentists of the world fall into insignificance when compared to the tooth-brush, when used as it should be. Now, this may seem to be putting it pretty strongly, but I hope, dear reader, you will not consider this a mere figure of speech, but I honestly believe this. I often preach this short, but I hope effective, sermon to my patient after having finished everything I can find to do in the mouth in the way of filling or otherwise restoring the mouth to normality: "Now, I have done everything I can for you—that is, I have done my whole duty—and it lies in your power to do more for the preservation of your teeth than I or any other dentist in the world can do." This naturally leads to the inquiry, "How do you mean?" This gives me the opportunity to tell about the brush, the kind, and all that; and lastly, but not least, how to use it, without openly accusing them or insinuating that they don't keep their teeth clean, all of which one might do and adhere strictly to the truth. But this will not do. Better to lie under some circumstances than speak the truth. Get at it in some other way. The subject being opened, read the sermon (not on the "Mount") on the tooth-brush; read it loud and strong. Tell them and prove to them in language as strong as you can command that you will save them money and suffering if they will practise that which you preach to them. It is not an uncommon remark for patients to make that they don't see why their teeth decay when they brush them three or four times every day, and at the same time they say it one might give a very close guess what their last meal consisted of from the fragments about the molar teeth.

The brush to be effective should be used in every direction, and particularly while holding the brush the movement should be in a horizontal manner to brush down upon the upper teeth and up upon the lower teeth, allowing the stiff and scattering bristles to go between the teeth to remove every particle of food finding lodgment there. And your subscriber should not be afraid to brush the gums at the same time, even if they should bleed; the more blood the more I would recommend brushing, thus relieving congestion by depletion.

The importance of cleanliness is a strong point gained. Now thoroughness is the next. I believe a great many people brush their teeth in the same way that a great many dental students take their dissecting—it's part of the course and they are obliged to take it. So with brushing the teeth; the simple form is gone through very gingerly and the individual makes himself believe that he has performed his duty. So I will say in concluding that the burden of my song and prayer is and shall be till I die, thoroughness of cleanliness, and I also hope those among the dentists and dental students who may read this may convince themselves, if necessary, of the importance of what I say, and when so convinced they will be better qualified to go and preach this gospel in the highways and byways.

DENTAL TRAINING.

Questions of dental education are occupying much attention in the journals and dental society meetings, especially at our annual gatherings, and are often treated from a narrow and erroneous point of view. There are those—usually who know little or nothing of practical teaching—who feel that they are annually called upon to assail the dental colleges and their methods of instructing; others calling for difficult entrance examinations. Some would have it so high as to exclude all who have not a classical education, etc. Such examinations many of these advocates would themselves utterly fail in were they put to the test.

The school which requires a rigid entrance examination and has a large faculty, teaching a great variety of subjects—all of which may be good in their way—may fail to graduate students who will make successful practitioners. Its students may have what Prof. Gross designated as "photographic memories and microscopic brains." They may be storehouses of dental and medical theories, and yet fail utterly as practitioners, and never contribute a single fact to the advancement of their profession. As the *Journal of the American Medical Association* says, editorially, upon the subject of

professional education: "Many writers use the term medical (or dental) education as if it were something complete or finished. Diplomas are often considered as evidence of this, and are offered as guarantees of scientific skill."

These are sad delusions. A medical or dental education, we may say, is never finished, and the true aim of our schools is, or should be, to train men to observe and to think for themselves, not to overload them with theories. The mere memorizing of the facts which are seen by the microscope would never make a practical microscopist; and this holds true in any other channel of scientific work. The assumption of truths without personal examination, and the inability and want of training to examine independently, is too often the case. The facts must be sought for, examined and compared.

The dental school that trains its students to be explorers, to study accurately the various phenomena of health and disease in and about the dental organs, inspires them to be ever on the alert for new facts, or new conceptions of old ones, who are never learned but always learning, is the ideal one.

Students should not be allowed to accept the facts presented in the lecture or clinic-room by their teachers, and found in their text-book, as conclusive, but should be trained to verify these by personal examination and experimentations. Too often have students, who by memorizing a few facts as given by the incumbents of the several chairs during the lecture course, been given their diplomas with the full right to practice and to be accepted as representatives of the profession. But dental teaching is each year, through the efforts of the Association of Dental Faculties, being placed upon a more uniform and broader scale. More time is given to the several laboratories and class-rooms, where the instructions are more of an individual nature, and where the student is taught and encouraged in using his powers of observation and reason, and, in making personal experiments, to be accurate and true. Manual training is an important factor in dental education, and those who were fortunate enough to attend the meetings of the National School of Dental Technics, recently held at Asbury Park, must have been impressed with that fact. Dr. E. C. Kirk, an acute observer, in commenting upon this point, says: "The application of the laboratory method in dental education, the introduction of the technic method in our schools, by bringing the instruction in operative and mechanical dentistry and therapeutics into line with the laboratory method as utilized in the departments of pathology, chemistry and histology, is a most important step towards cultivating a scientific habit of mind and a desire for original research among the dental students of to-day, which must tend to elevate our standards and ideals and react favorably upon future methods of practice."

Now that dental teaching has reached a broader and more uniform basis, our schools should require something more in the way of examinations than recitations and the memorizing of facts. The mere gathering and storing of dental knowledge can never make a successful dentist. While no college can educate a man in the true sense, yet they can prepare him to use his powers of observation and reason ; and when a student realizes his limitations and the personal equation of error that is liable to complicate his observations, he becomes a scientist in the highest meaning of that word. Of course, all of us cannot be scientific investigators in the broad sense ; but, as has been observed by others, it is, after all, a matter of degree, for everyone is, or should be, capable of observation, and able to interpret and report such observation.

While many of our colleges are excellent, they have not, as a rule, introduced this matter of personal observation and the recording of same in their curriculum. We have the medical journal referred to above as authority, that an English medical school has recently adopted a plan requiring all senior students to spend a good portion of the last year in observing and writing up cases, the notes of which are corrected by the teachers. In this way the senses and reason are trained to observe and compare the relation of facts—a move, we think, worthy of emulation.—G. W. W., in *International Dental Journal*.

NEW DENTAL LAW FOR MARYLAND.

Chapter 378 of the Maryland laws of 1896, which was approved April 4, 1896, repeals Article 32 of the Code of Public General Laws, entitled "Dentistry," and re-enacts the article with many changes in it. The new law makes it unlawful for any person to practise dentistry in the State unless he shall have obtained a certificate therefor. It then provides that there shall be a State Board of Dental Examiners, which shall consist of six practising dentists of recognized ability and honor, who have held regular dental diplomas for five years. They are to be appointed by the Governor out of a list proposed by the Maryland State Dental Association. Six years is the regular term of office. Any member who shall be absent from two successive regular Board meetings shall cease to be a member of it. The regular meetings are to be held in May and November of every year, with special meetings as required. Any person twenty-one years of age, who has graduated at and holds a diploma from a university or college authorized to grant diplomas in dental surgery by the laws of any one of the United States, may be examined by said Board with

reference to qualifications, and upon passing an examination satisfactory to said Board, his or her name, residence or place of business shall be registered and a certificate shall be issued to such person. Any graduate of a regular college of dentistry may, at the discretion of the Examining Board, be registered without being subjected to an examination. A temporary certificate for a specified time may be issued by the officers of the Board to any applicant holding a regular dental diploma duly registered by a Board of Dental Examiners created by the laws of any one of the United States, but no such certificate shall be issued for any longer time than until the next regular meeting of the Board. The fee for this temporary certificate shall be \$5.00. Transcripts from the book of registration, certified by the officer who has the same in keeping, with the seal of the Board, shall be evidence in any court of the State. Every person shall be said to be practising dentistry, within the meaning of this Act, who shall for a fee, salary or other compensation, paid either to himself or to some one else for services rendered, perform operations or parts of operations of any kind pertaining to the mouth, treat diseases or lesions of the human teeth or jaws, or correct mal-positions thereof. The penalty for a violation of these provisions is a fine of not less than \$50.00 nor more than \$300.00, or confinement in gaol not more than six months. But nothing in this article shall be so construed as to interfere with the rights and privileges of resident physicians and surgeons, or with persons holding certificates duly issued to them prior to the passage of this Act; and dental students operating under the immediate supervisions of their instructors in dental infirmaries or dental schools chartered by the General Assembly of Maryland. Money received for examination and registration, the fee therefor being \$10.00, shall be used toward paying the expenses of the Board. All fines received are to be paid into the common school fund of the city or county in which conviction takes place.—*Journal of American Medical Association.*

HOW TO TREAT SENSITIVE DENTINE.

By DR. A. H. BUTTERFIELD, Stamford, N.Y.

Carefully selected, well shaped, small and sharp instruments, with a well-trained hand, are more than half the requirements of painless work. I regard a well-adapted instrument of small size of more importance than medication in sensitive dentine. Last winter I commenced using sulphuric acid, preparatory to filling roots, and observing its anæsthetic effect I tried it on sensitive dentine, with enough success to embolden me to further use it.

Now, with few exceptions, I am able, with its use, to operate on the most sensitive teeth without discomfort to the patient.

At my chair I have a syringe nozzle connected to a handle ; this is connected by a flexible pipe to a large cylinder (built like the air-chamber to an ordinary hot-air syringe), which is heated by a movable flame, so that the air can be heated from moderately warm to hot. Back of the cylinder, and in connection with it, is a chamber into which I put my medicament. This is controlled by a two-way cock ; a lever of this cock is within easy reach of the chair, and by operating this lever I can allow the air to pass through the medicament, or not, as I choose. This, in turn, is connected by a system of pipes, to the laboratory water motor, which operates an air-pump. By starting the water-motor I can force a continuous stream of hot air, medicated or not.

After adjusting the rubber-dam, or using some other means of preventing moisture from entering the cavity to be operated on, I turn on the air-blast and thoroughly dry the cavity, then I put in a drop of sulphuric acid. After waiting a moment I wipe out all surplus, and with the warm air-blast dry, after which, with small, sharp burs (or excavators) I can excavate without discomfort. After excavating I usually place a portion of unused soda to neutralize any acid that may be present, and proceed to fill with whatever material my judgment dictates.

The medicament used in the chamber spoken of is composed as follows :

Carbolic acid,	
Oil cloves,	
Oil cajeput	āā 3 j.
1, 2, 3, mixture.....	3 j.

The use of which is to allay the discomfort sometimes caused by the blast of air on the dentine, and I find it very efficient.

Correspondence.

"THE INFIRMARY."

To the Editor of DOMINION DENTAL JOURNAL:

I noticed what you had to say about the opening of the College ; yet, there is a question which is much the better of discussion, and that is in regard to the Infirmary. Probably this does not affect the profession outside the city to any great extent, yet there are some of the city practitioners complaining very strongly of it. The principal complaint is that many patients are treated at the Infirmary who are abundantly able to pay the moderate charges

which are asked by the legitimate practitioner. As they say, the competition of the cheap-Jacks in the profession has forced the prices down to a point where they are not over remunerative, and if in addition to this many of those—and there are many in every practitioner's clientage—whose charges the dentist himself regulates according to their circumstances, if these also are taken away from them and attracted to the handsome parlors of the College, they will be in sore straits, indeed. Now, it must be remembered that the men who are most affected by this are not those who are doing the swell practice, but the poorer members of the profession who are striving to uphold the teachings on ethics and dignity of the distinguished leaders in dentistry, and are really the men upon whom the weight of upholding the dignity of the profession falls, because it is a very easy matter for a man to be dignified and highly ethical when he has rich patients and abundance of practice; but give the same man poor patients and few of them, then the hour of his trial comes, and it is in the defence of these men that I chiefly write, and they are the ones who are chiefly affected by the Infirmary.

Many methods have been proposed to relieve this condition of affairs, and one which I think might be satisfactorily worked, as the city is not of such a great size, is somewhat on the principle of the admittance of patients into the General Hospital. The usual procedure for the admittance of patients to the free ward in the Hospital is to have the certificate of a clergyman, which must be countersigned by the Medical Health Officer of the city. Now, if the city were divided up into districts and certain members of the profession appointed by the local association for every district, whose duty it would be to give a certificate to any patient that such person was entitled to free treatment at the Infirmary, and that no person be treated at the Infirmary without the presentation of such a certificate, much of the present difficulty would be overcome. This is thrown out merely as a suggestion; it is for those who are interested to discuss it.

PRACTITIONER.

[N.B.—The columns of the JOURNAL will be open, as always, to all who wish to discuss any questions affecting the profession.—ED.]

Dominion Dental Journal

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"ASSISTANTS" AGAIN.

In the August issue we referred editorially to the case of the unregistered assistants, who, by various ways, have got into the offices of some dentists, and who are as illegally in their positions as their employers would be if they had no license. Rapidly following this article, two licentiates of the Province of Quebec circulated for signatures a cunningly-worded petition to the Local Legislature, asking the right to hire assistants who may be graduates from any dental college without the usual requirements of the law. The sudden interest these parties took in the profession might have been easily suspected to be entirely selfish ; but, as the signers assert, the facts were so misrepresented by the petitioners that the former were deceived. We are not in the habit of making personal allusion to ourselves ; but, on this occasion, it happened that we found ourselves placed in a very embarrassing position. On the petition appeared eleven names of the staff of the Quebec College. Instead of suggesting the resignation of these gentlemen, and believing that they had been grossly deceived, we resigned our own position. The letter elsewhere will speak for itself. The matter is published here just to show the profession in Canada everywhere that they must constantly be on the *qui vive* for insidious attacks. It goes to show, too, the importance of unity in our ranks. We are sure some of the parties who signed the petition, and who did not remove their names, would not care to have them published in this journal or in the public press. Sometimes a good man gets into questionable company, and it happens that in this instance a few of the signers of the petition have been

eminently ethical, and if they have done nothing for the educational interests of the profession, they have at least observed a dignified neutrality. It is far wiser to do nothing than to do mischief, or help anyone else to do it.

THE TUG-OF-WAR.

In Ontario and Quebec to-day—especially in Toronto and Montreal—tugs-of-war are going on between the respectable and the disreputable ; between the practitioners who, if they advertise at all, do so ethically, and the selfish sneaks who want the earth. When men combine to do mischief, like men who combine to steal, they work earnestly. If the ethical men would but combine to expose such people, the latter would slink back into their natural obscurity. The trouble is that some men who have their practice secure think it best to let matters drift. Their position is purely selfish or thoughtless. We feel that, so far as journalistic efforts can avail, we have done our share, and have received ten times more abuse from the few blacklegs of the profession than we ever got commendation or support from the leaders. In war, we want loyalty and unselfishness. It strikes us that the blacklegs have as much, if not more, of it to themselves than those who condemn them.

A PRIZE-WINNER.

Our readers have doubtless noticed that one of the four prizes recently offered by the Palisade Manufacturing Co. for the best essay on "Antiseptics in Dentistry," was awarded to Dr. Martin, our Abstract Editor. Those who have been watching Dr. Martin's able work in connection with these abstracts will not be surprised that one who so ably condenses the ideas of others for the benefit of the profession should be so successful in expressing his own.

Australasian Journal of Pharmacy. Among our valuable exchanges we always receive with pleasure the *Australasian Journal of Pharmacy*, which is also the medium of communication for our professional brethren 6,500 miles from Canada. The growing commerce between Canada and Australasia, as well as our Imperial unity, would naturally warm us towards the great colonies of the Pacific ; but it is interesting to know that in Victoria, New South Wales, New Zealand, Queensland, South Australia, Tasmania and Western Australia, dentistry has kept pace with the progress elsewhere ; dental boards holding regular meetings for examinations and granting licenses.

Dominion Dental Journal

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Original Communications

DENTAL COLLEGE OF THE PROVINCE OF QUEBEC.*

Exactly one hundred and thirty years ago dentistry was introduced from England into the United States by John Woopendale, a former student of the dentist to King George III. The first dental college, journal and association have respectively a history not yet sixty years old. In Ontario, as an organized body, it is, to a month, the age of Confederation; in Quebec, a year younger. It is the youngest of all the professions, yet it deals with the most prevalent disease in existence. It has become a giant in its practical development; its failings are but those of puberty. Let me here repeat something I said elsewhere: "Medicine can trace its history to the early periods of Grecian civilization; Law to the schools of jurists in the reign of Tarquin; but the statements of Herodotus and later writers are not sufficient to prove that Egypt was in any sense the cradle of Dentistry. The gold said to have been found in the teeth of mummies from Thebes was proved to be nothing but the same gilding with which the mummies were covered. The replacement of lost natural teeth by substitutes of bone or sycamore wood set in gold has, it is true, been discovered in ancient Egyptian sarcophagi; but this does not substantiate the claim that they were made by specialists in dentistry, but rather by the gold and silver smiths who worked in the great synagogue at Alexandria. One can easily imagine an Eastern girl standing

* Opening lecture by the Dean, Dr. W. Geo. Beers.

before the goldsmith and, as she smiles at his blandishment, revealing to him the loss of a front tooth. With instinctive ingenuity he offers to carve for her a substitute of bone to fill the ugly gap and to fasten it to the adjoining teeth, as he fitted her ear-rings, by golden loops. Still, we must let the antiquarians in our profession enjoy their hobby, and trace, if they can, the practice of dentistry as coeval with the flood. When we remember that the Jewish rabbins averred that the worms of the grave had no power over Abraham, Isaac, Jacob, Moses, Aaron, Miriam, Benjamin and David, it may happen that some inquisitive dentist, travelling in Hebron, may excavate their molars from ancient burrows, and exhibit to us operative dentistry that will put us to shame. Or it may be that some Canadian, fishing for trout in the Laurentides, may discover artificial teeth as contemporaneous with the *Eozoön Canadense*."

It is not, however, my object to discuss our history outside of the Province of Quebec, or even to eulogize the undeniable progress made in our science and art in Europe and America. The politics of dentistry have engrossed a great deal of our thought and time. They have materially improved the practice of dentistry. We are met here specially and seriously in our own interests, but I do not hesitate to say with emphasis that we are here much more in the interests of the public; that we may do what we can to raise the standard of our education and the tone of our practice; that we may encourage diligence and skill, and discourage among our future practitioners who constitute our students, the temptations to that slipshod practice which is simply mechanical and purely commercial. We have been confronted by educational circumstances which, curiously, exist nowhere else. To the science and theory of the profession, splendid, and in many ways unrivalled, contributions have been made by England, France and Germany; but practically it is intensely of English and American origin and growth, and the literature of the best practical text-books has been almost altogether English, while the prolific dental schools of our Republican neighbors have recently decreed that they will not receive students who do not understand English. The embarrassments of the former and the difficulty of the latter, so far as Quebec is concerned, were in a measure met by the way, in 1868, when we put our heads and our hands together in a united French-English Board of Examiners, and, in 1892, in a united French-English Faculty in this College. In the former the examinations are in both languages; in the latter the lectures and examinations are likewise in French and English. In this way, for nearly thirty years there has existed an unbroken concord, which might serve as an object-lesson to more important political organizations.

Just now the responsible authorities and stewards of the profes-

sion feel that they are justified in recalling some events in professional and public interest. Some of us, as quite young men, do not forget the reasonable scepticism and the unreasonable opposition when the dusty and dry bones of dental education were disturbed. Some of us remember those who condemned a principle of protection in dentistry, which they commended in medicine and law, and which they are very properly not averse to extending to-day to some branches of trade. The desire to get an education in our own Province to meet the needs of our French students specially, and our English as well, was denounced by some as an altogether unnecessary aspiration, and a few resented it as "tyranny." Had they been in the wilderness with Moses, no doubt they would as instinctively have resisted the passage of the Ten Commandments as a tyrannical encroachment upon their civil rights. We had to contend with half-hearted friends and whole-hearted foes ; we had to lobby in the Legislature and fight in the courts. For a time, almost any Tom, Dick or Harry who had influence in the former could get a private bill, or could get our public bill smashed beyond recognition, and while our own Canadian students were forced to comply with the letter of the law, there were privileges extended to foreigners denied to ourselves ! It was only by persistent application to the Legislature, with very little influence there ; not one syllable of support from the press ; with not one cent in any shape to this day from the public, and with even some of that treachery and jealousy in our own ranks, with which all unselfish efforts have to contend, that we got the workable legislation that enabled us to open this little college. It is a small institution, but we have no one to thank for it but our own profession. When the public want to make it better and bigger, they know the secret.

You can see that we have had almost a thirty years' war on behalf of the profession and the public. We do not wish to erect monuments to the memory of the wounds got and given. We were hit hard by our foes, and quite wrong they were. We hit back hard, and quite right we were. But we are reaping to-day some of the results of the mischief sowed. I often think that the public does not deserve the sacrifices we made in its interest. If our work had been instigated by any hope of public appreciation, it would never have been completed. The public, as a rule, is satisfied to be ignorant of its best needs in relation to medical and dental practice. It is not a student of medicine or dentistry. It goes to both more blindly than it goes to law. It frequently regards the claims of higher education in both as personal or professional clannishness. It will sometimes take sentimental sides with the law-breaker ; and even the law-maker has been the friend of uneducated men who wanted to get into the professions by a subterfuge, or a side door. It takes many of its educational

ideas from quack and sensational advertisements, and ethical and honest men cannot, or will not, compete with this method of public instruction. The portion of the public who confide in the skill and integrity of ethical practitioners, do not doubt that they do the best that is known, and that the pretensions of infallibility and superiority, which are for the first time discovered in the public self-eulogy, has good reason to be suspected. Dentistry especially occupies a peculiar position in relation to the public. The diseases of the teeth are supposed not to involve questions of life and death. The man who flies to the physician if he has a pain in his stomach, is not so fearful of the consequences of neglect when he goes to the dentist with a pain in his tooth. He has, or should have, thirty-two teeth; he thinks it is not in any way serious to lose one, or all. If he had as many eyes as he has teeth, and could retain the functional value of ten by losing twenty-two, or if he could get them replaced by artificial substitutes, that would serve him nearly as well, he would, no doubt, find degenerate oculists, who would accommodate his stupidity, and even encourage it. The people who have blue eyes and who would like to exchange them for hazel, could then revel in the operation, like the people who now delight to sacrifice the teeth Nature gave them for the tombstone and crockery horrors of the quack. Thousands of valuable teeth are sacrificed to public ignorance of their value, as well as of the caricature which so frequently is produced in the rage for cheapness. It is extraordinary that in this Province of many schools and eminent universities, so much ignorance should prevail of the functional importance of the natural teeth; their direct and collateral relation to many local and distant diseases, and the disfigurement of face and feature, and the interference with proper digestion which badly constructed artificial teeth may cause. So forcibly has this appeared to the Provincial Board of Examiners and the Faculty of this school that many public requests have been made to us to issue a warning through the press against dental humbug. Do you believe it would avail? I do not. It is not possible for any self-respecting man to indulge in sensational means of advice, or of attracting attention, and such official action would be so regarded. We know that these sensational advertisements are invariably the trump card of open quackery, or the last resort of those who think it will be of commercial profit to imitate the methods of quackery.

It ought to be clear to the humblest understanding that no intelligent dentist could afford to ignore any modern improvement in dental science or art, which has passed the stage of speculation and proved to be a public boon. There is not a solitary idea or acquisition of any value known in modern dentistry which is monopolized by any practitioner, however eminent he may be. It is

not likely that those who are regarded by their confreres with that distrust which denies them admission even to voluntary professional societies, control the skill or the tact which ethical men aspire to possess. There is much in modern dentistry, as in medicine and surgery, which, in the hands of the incompetent or ignorant, is dangerous to health and life itself. It may be as well to say here, *en passant*, that no respectable dentist ignores claims upon his professional philanthropy, and that there are no financial circumstances, however humble, which cannot be met by honest and ethical practitioners, either in their own practice or in the case of the deserving poor in the infirmary of this College.

At its best, dentistry to-day is circumscribed in its practice. It is the poorest paid of any of the professions for its best, and the highest paid for its worst. It exceeds any other profession, none excepted, in the cost of its maintenance. The temptations in it to deceive are intensified by the credulity of many of its patrons. It has no such financial collateral opportunities as other professions enjoy. There is no public promotion or public reward for anything its members can supply. It has gratuitously served the poor in this city for half a century in the practical philanthropy of its practitioners, in their own offices, in lieu of any public infirmary. The students of this College, under the direction of a staff of our best dentists, have attended to over a thousand patients, solely at the expense of a very few of the dentists themselves. We have never asked for or received one dollar of public aid that we might better equip this school, and better serve the poor, and, I imagine, we are not more respected for our modesty. The profession is over-crowded, and the natural results are in evidence in the depreciation of fees, and the increase of professional cost of practice, and, no doubt, if the public appreciation of the teeth in this Province is not more enlarged, we will by and by be able to say of the dentists, as was said of the English curate, that they are the best educated paupers in the country.

We at least know the importance of our profession, and have some faith in its future. If we had not we would close this school. The condition of the teeth *per se*, especially the teeth of children; the many known and unknown, to the public, local diseases, caused by dental disease; the constitutional, and especially the nervous affections directly due to diseased teeth, give wide scope for practice. Her Majesty the Queen once said to her household dentist, Sir Edwin Saunders: "Yours is a very important profession, for while some need the skill of the oculist and aurist, almost all need that of the dentist." If the public, and physicians especially, fully appreciated this fact, the services we are able to render would be better known and earlier sought, and the allurements of sensational advertising would have less effect. We are all more or less

victims of some form of imposture. There is a glamor about it, even with the clearest evidence of fraud. The simulation of sincerity and the boldness of the claims, and the pretence of philanthropy, often pass current in the very face of truth. But there can be no more shameful fraud than that which is practised upon the credulity of the sick and suffering, no imposture which more merits restraint by the strong arm of the law, than the sharp practice of the medical and dental humbug.

As a profession we are heavily handicapped by reason of the limitations of our field of action, and by the fact that even the large majority of medical men do not even theoretically appreciate the inseparable relationship between the diseases of the teeth and those of other organs, and are not frequently enough disposed to send such patients to the dentist. We are handicapped by the public ignorance, which extends superstitious veneration to the consequences and treatment of the simplest pathological case in the practice of medicine, and which regards extraction as the sure remedy for all the ills to which the teeth are heir. The scientific treatment, sometimes prolonged, and occasionally a failure, is discredited by the quack, who glories in his humbug, and who profits by his shame. Professionally, many men are discouraged by the ignorant chase for cheapness, and the readiness of so many to submit their mouths, in a way they would not entrust the care of their cattle, to the lowest bidder. It has become one of the modern additions to a new form of insanity. It is impossible to speak dispassionately in this connection. A mortality of over four thousand in this city was not enough to eradicate the dread of small-pox. The periodical visits for the last twenty-five years of unknown medical and dental humbugs, have not been sufficient to open the eyes of the public to the reasons for occasional success that is blazoned abroad, and the scores of failures, which are discreetly concealed. Even such precious organs as the eyes, with their special relationship to dental affections, were for a long time in Montreal confided to the care of those who were not specialists, and are sometimes trifled with to-day by mechanics, whose experience cannot be reliable. But the teeth—heaven help them! Better lose the teeth than lose your hair, say many, for you can easier conceal the loss of the former with a cheap artificial set than you can hide the loss of the latter with a wig. Nature meant the first set of teeth to do service for seven years; but many people think it no wrong to the child to let them decay, and to let the poor youngsters suffer their loss. A quaint jumble of gross credulity and misty tradition hangs about the popular idea of the functions. The value of the teeth, why they may decay in health as well as during illness; why they are so commonly the cause of diseases of the nervous system, the alimentary canal, the

respiratory organs, etc.; why the very cure of affections of the eye, the ear, the throat, the lungs, the stomach, depend upon primary treatment in the mouth, bewilders and blinds the large majority of victims. Not long ago a child was told by the head of one of our public schools that the proposed operation of saving a front tooth would be a failure, and that it would be better to lose a tooth than lose a lesson!

I would not be so foolish as to impute any purely selfish or dishonorable practice to the press, in its relation to the question of medical and dental advertising; but we venture to believe, that the generally accepted custom of measuring professional value by inches, in its advertising, and judging the practitioner who does not advertise at all, or who does so in a modest notice, as not worthy of the same attention as the one who advertises by the yard, is, to say the least, unfair to the public. Does it not seem strange that the greatest impostor can actually force falsehoods into our homes, through some of the most respectable newspapers, providing he pays for them as advertisements? Whatever excuse may be made for this, with reference to goods which one can examine and judge for himself, what defence can be made of its application to the care and treatment of human disease? A portion of the press, which editorially declares it a part of the duty it owes its readers, to protect them from injury or imposture, seems to absolve itself from this mission, if the impostor is willing to pay for it "in the proper place." The known charlatan whose plea for public approbation would be indignantly rejected in the editor's sanctum, is welcomed in that of the publisher, and the more "inches" in which he asserts himself, the warmer the welcome. This Janus-sort of arrangement enables the publisher to adhere to his "principles" in one room, and to retreat from them in the other. It is a curious illustration of the "principles" upon which a part of the newspaper press is conducted, that the most shameful humbug in medicine and dentistry, even that which has been proved to be detrimental to health and morals, can find conspicuous and pictorial admission to its columns, provided it is paid for at the current rates of advertising. In this way the press is *particeps criminis*, actually a co-partner in the profits of deception. It seems to pay to be editorially moral. It pays, too, to overlook that sort of thing elsewhere. The public is apt to believe the most extravagant pretensions, because they are "in the papers." It often does not stop to reflect that there is no truth in this self-glorification. It cannot very well know that the pretence of controlling certain methods of treatment and appliances is false, and that they are known to every practitioner.

I do not overlook in this connection the peculiar position of the country practitioner. It is a necessity in our widely scattered

population that the country dentist should visit places distant from his own office. This service may be made of great advantage to the farming community, or it may be made a pretext for the greatest imposture. Our city population is no exception to the rage for cheapness. They rush to the bargain counters of the departmental stores in blind competition; they often spend two dollars to save one. The quack may not know his business, but he knows human nature. He is more of a knave than a fool: more likely to rob his patients than himself. The public demand for cheap manufactures can be met by shoddy work, by cutting down the wages of employees, by compromising with one's creditors. That for the cheap treatment of disease has no such facilities. Any manufacturer can cheapen his productions to suit his customers; but there is a point at which it would pay him better to withdraw his capital and discharge his employees. Any farmer's wife can sell her butter for ten cents a pound, or eggs for five cents a dozen; any country storekeeper can sell his goods below cost; they can, too, give them away for sweet philanthropy's sake, but it does not "pay." The quack medicine men who give advice free, and who seem so generous, are neither as philanthropic nor as clever as they pretend to be. They make fortunes—not out of philanthropy, but out of public credulity. The "tricks of trade" in dental practice are just the same. The travelling quack pretends to skill he does not possess; it is easy for him to deceive; it is just as easy for him to lie. It is necessarily his chief stock-in-trade. He has little or no professional education; the little he knows he has picked up at hap-hazard. If he did not depreciate educated men who act honorably, and misrepresent them, the mean beggar would starve. Anything has been good enough for him, and he thinks that anything in dentistry should be good enough for farmers! Even if he wanted to be honest now he cannot; he has forgotten, if he ever learned it.

In one sense it is humiliating to be obliged to allude to some of these questions. In some respects it is almost a waste of time. Notwithstanding the fact that we are working for the profession at large very much more than we are for ourselves, the profession at large does not give this work proper support.

The men who have done the hardest work for the profession in Canada, are men who needed social and other relaxation quite as much as the men who did nothing. But they gave time and thought and money of their own, that dentistry might rid itself of the ignorant quack and the sharper who resorts to quack-methods. It would have "paid" these workers better, had they given this time and thought to their own private business. More men have made fortunes by minding their own business, than by busying themselves about the higher interests of the profession. The

public do not care a fig for your professional devotion, outside of your duty to the public. And, as a rule, the profession is ungrateful. All the same, there are men who will continue to do unselfish work. They have a reward, which those who only make money cannot understand or appreciate.

ROYAL COLLEGE OF DENTAL SURGEONS, TORONTO.*

Mr. Dean, Members of the Faculty, and Gentlemen :

Regard and respect for the worthy Dean, the accident of official position, and the feeling that the time was opportune for a member of the medical profession to give to the dental fraternity some token of sympathy and kinship, have led me to accept the courteous invitation to give the opening lecture of the College in its new home.

It is at once a pleasure and a duty to add my hearty felicitations on this auspicious occasion, to those expressed last week when the building was formally dedicated as the domus of the Incorporated Dental Profession of Ontario. It must be a cause of genuine pride and gratulation on the part of the Faculty to have a building and equipment unsurpassed, if equalled, by any on this continent. I am sure the confreres of Dr. Willmott will heartily concur without a tinge of jealousy in the statement, that the present elaborate, if not perfect, facilities for teaching are largely due to the ability and untiring energy of their Dean, who, in his double capacity of responsible head of the Institution and Secretary of the Royal College of Dental Surgeons of Ontario, has shown that he was pre-eminently the right man in the right place. He, on his part, will doubtless accord the due meed of praise to that veteran of your profession, Dr. H. T. Wood, whose faith and zeal have found at last so happy fulfilment.

Let me add, your Dean long ago showed his breadth of character, foresight, and wisdom by calling to his aid gentlemen of my own profession, each an expert in his own sphere ; and the present enlarged faculty shows the same generous recognition.

Those who have spent part of their course in the less pretentious quarters must have rubbed their eyes on entering this perfectly arranged and fitted building, and those beginning their studies must have *opened* their eyes at the first sight of its complete interior.

Some of the entrants, it may be, have been wont to watch the

*Address by R. A. REEVE, B.A., M.D., Dean of the Medical Faculty of Toronto University, at the opening of the twenty-second session, October 6th, 1896.

simple process of extraction and filling in unpretentious environment, and have had a peep now and then into the sanctum,—a rather unkempt place, to be sure, and may have said, well, this does seem easy work, and it is apparently honorable and profitable withal. We, too, will be dentists. And you have come, and are possibly somewhat dismayed as you try to take in what an hour in the Institution reveals. And you ask, Why all this paraphernalia, this elaborate provision for such a simple result?

Gentlemen, it is all right, and in strict accord with the spirit of these latter days, and in keeping with that of the great University with which your school is affiliated, and which is destined by and by to be your Alma Mater. She has made great and successful efforts to keep in the van in the march of progress, as her magnificent science buildings and other halls of learning attest, so as to provide that thorough teaching and broad culture now regarded as essential to the highest success in life.

Your College and Faculty biding their time, and yet attent, have wisely caught the afflatus from the academic groves hard by; and if my own profession had not its own imposing and substantial chambers, the speaker would indeed feel chagrined as he looked about him; and if the medical department of the University could not point to the fine laboratories and other halls at her command, he would feel sorely abashed in view of your splendid equipment.

A glance at the curriculum of your school, and at the list and scope of subjects, the mastery of which is requisite for the University "D.D.S.," clearly shows that those who at last reach and get without that wicket-gate at the end of the course, to open which neither guile nor magic pass-word avails, but only the touch of a trained and competent hand,—have passed an ordeal that stamps them as worthy to join the honorable company already in the field.

Surely this must commend itself to your better judgment. Think you, would Alexander have prized his matchless Bucephalus if to tame the noble steed had not taxed to the full the vim and fibre of the conqueror of the world?

And the mere fact that those who have at heart the best interests of the profession of your choice, and also your own, have seen to it that the goal can only be reached by up-hill work and plenty of it, should, of course, enhance your estimate of the dignity and worth of your calling.

Those are most regarded who respect themselves, and I believe this crowning effort of your profession will go far to put an end to that false idea of your real status which in sundry places finds vent in unseemly ways. He reads wrongly the signs of the times, who does not see that the day long ago foretold in another realm, the spiritual, has also come in due time in the secular; and that

there are no things so minute as to be small or insignificant, which concern the weal or woe of mankind.

True, your horizon is in a sense circumscribed and your field of operation limited, but if your work is to that of the medico as is the art of the engraver or etcher to the role of the painter, yet there is room for that genius which is the mastery of minutiae, and call for concentration of energy and of the senses, that is especially trying to hand and eye, and, indeed, brain.

The dental surgeon often requires pluck and vim of high order in the *mouth* of difficulties, and there can be no better test and example of honest work than he gives, with the temptation to stop short of the best in order to lessen the present suffering of those who would be the first to upbraid him for his neglect of duty.

But it would be an unfair and narrow view to limit your functions to mere mechanical work. The public cannot know, and the medical profession, I fear, have not rightly appreciated that, though, as in the case of the doctor himself, much that occupies him is, so to speak, of a routine nature, the dentist has to be prepared at the outset and always for the rarer and complicated cases that demand judgment as well as skill; as, for example, in dealing with the not infrequent irregularities of the jaws and teeth, where the influence of heredity and of the evolution of family types has to be gauged long before age has solved the problem. Then the *facial expression* may be marred for life by ignoring the influence of the teeth upon the action of the lips and mouth; and not a little discretion is needed in improving the contour of the jaws, deciding as to the sacrifice of teeth, not to speak of the care and knowledge required in neglected cases of so-called alveolar abscess, or misdirected and non-erupted molars, especially the "wisdom" teeth, now known to be the cause of inveterate neuralgia, or of obscure and dissecting suppurative processes, or of chronic spasm of the masseters. Then, in addition to the study of the embryology and evolution of the teeth, the dentist requires, of course, to be familiar with the influence of heredity, of faulty hygiene, and of various constitutional diseases, and of the reciprocal relations of teeth and health and health and teeth. He has to avoid the danger of all specialists, the ignoring of the greater in the less; and while it is not his duty to treat systemic causes of dental disease, it is his prerogative to teach hygiene, and to act as the coadjutor of the family physician by hints and suggestions, both timely and helpful; and also at times to give him the aid of his special skill in diagnosis or treatment. The dental surgeon has not warrant to play the role of physician or general surgeon, but I opine, he will in the near future be a closer ally of both in efforts to conserve those valuable factors in the well-being of the human economy, whose importance is still underrated. Medicine owes not a little to Dentistry, as Prof.

Thomas Fillebrown told us last week, but I am glad to know the debt is being repaid.

Here the speaker wishes to pay a tribute to an honored senior predecessor, Dr. W. T. Aikins, who for many years used his great influence in pointing the moral of bad teeth, as well as to enforce the laws of hygiene in general. But if the dentist and the doctor are to act more freely in concert hereafter, the former must not trench on the domain of the latter, and the physician, on his part, must let alone the legitimate work of the dental surgeon. He will aid the latter not by virtue of less but of greater knowledge, for he will have clearer light as to the need of early care, and as family supervisor will relegate to the dentist many cases that in the past have been let go to the bad. He will be the more on the alert from his knowledge of family traits and hereditary tendencies. He will not be above utilizing his little laryngeal mirror to detect hidden caries. Not extracting teeth himself, he will also know when they should *not* be extracted, in contrast to his old-time forerunner, who knew how to extract teeth and did it, but unfortunately did not know when *not* to sacrifice them. He will certainly *not* let carious teeth set up periostitis and burrowing sinuses which he would be prompt to arrest in other places; nor hasten disfiguring perforating ulceration of the cheek by applying poultices externally, when the removal of an offending tooth or a simple incision to the bone would relieve about as promptly as the timely cut does a progressing whitlow. He will certainly not advise nor consent to the removal of numbers of healthy teeth for the cure of neuralgia of centric or truncal origin; nor fail to bear in mind the effect of diseased teeth upon the ear, eye, etc. He will correct the baneful effects of family traditions and prevent much of that suffering and danger to health due to fatuous neglect from ignorance. How long, think you, would folk wait if serious disease set in at different points of a rib, for example, which is, roughly speaking, the equivalent of the adult teeth in the aggregate?

If other than a benign Being overruled the destinies of the race, one could imagine that wonderful evolution of the deciduous and permanent teeth becoming a matter of history, and as a just retribution a toothless race appearing on the stage, left wholly to the aid and art of the dentist, the most wicked of whom could hardly, in his wildest dreams, have hoped for such largesse of opportunity! In this connection I must cite two incidents, one dating many years ago: At the tea-table, with the older folk, were three children of from four to eight years, and before them lay three kinds of cake, two of preserves, two plates of quartered pickled cucumbers and a modicum of bread. The young folk took freely of the cucumber, preserves and cake, and also tea, and shortly went to bed. This gave me one clue to that early and general decay of

the teeth so prevalent in the adjoining Republic, and which is only too common here, and on the *increase*, it is to be feared, by virtue of heredity and of the faulty nutrition now so often found as the result of an irritable, nervous organization. Incident number *two* was also across the border, and in a hotel, the mis-named home of so many of the rising generation: A youngster, so small that he had to sit in a high chair, while waiting for *his* order of two hard-boiled eggs and coffee to be filled, was seen to consume two crullers cooked in fat as his *first* course!

It has been said that dentistry should take place as a specialty of medicine, and there is force in the contention, as those will admit who have studied the matter, or listened, perchance, to the arguments presented here last week by one well fitted to put the case strongly. But circumstances alter cases, and, in this Province at least, with a status and standard hardly equalled elsewhere, your profession can assuredly continue to work out its destiny and preserve its autonomy; and also be a trusted ally and coadjutor of that larger body which embraces in its scope the prevention and cure of all the bodily ills, natural and acquired, that afflict mankind. While you are acting well your part, my own profession is continually taking higher ground, so that ere long the new man may be regarded as a sort of general specialist, the little knowledge of a branch that is so often a dangerous thing giving place to that ready insight and careful decision destined to be most fruitful of beneficial results. This will be the natural outcome of the longer courses and more deliberate preparation of these times, with their greater facilities for practical instruction, and the increasing number of the implements and improved methods of research.

Now, dentistry has an ancient history of its own, as has medicine, and from that point of view cannot be called a specialty on a par with those that have evolved in later times or in these latter days. In centuries long dead and buried there grew from a common root-stock two stems, one stronger and larger than the other, the larger tree having various branches and diverse fruits, the other a single trunk to the top, yielding less fruit and but of one kind, and that valuable. To-day we see the two, Medicine and Dentistry, each in a healthy state, and bearing respectively good fruit to meet the needs of humanity. They are practically distinct and are yet fundamentally one: It is said the lesser should be grafted on and become a branch of the larger and more wide-spreading; but since the result of the grafting process would be uncertain, and the supply from the one does not interfere with that of the other, and the smaller is yielding the best fruit of its kind, and plenty of it, and the foliage of the two already in places familiarly intertwine, while the roots are grounded in the same soil and draw

upon the same resources, it would seem the wiser plan to leave well enough alone—especially as there are active legislative pruners on the scene who seem to us of the professions rather ruthless in their designs and methods. To change the simile, Dentistry has a history, language, and ample and growing literature of her own that call for pride and satisfaction. The State has no foes, and its intestine troubles are growing beautifully less: Why then, its rulers naturally ask, should it give up its individuality, autonomy, and prestige to become a mere section of a larger State. That too, when the latter has not a few enemies without and within its borders, and illimitable unexplored land to redeem and cultivate

Let one who wishes to be a friendly critic say, what he would rather not have so good ground for alleging, that the blemish on the escutcheon of your profession is a tendency too manifest on the part of some to a purely commercial spirit, which is unworthy the free-masonry that ought to prevail amongst the members of the various professional confraternities, and is utterly out of harmony with that higher kind of communism which condemns all meretricious methods of gain and any misinterpretation of that plain word "fair-play," the Golden rule epitomized.

Gentlemen, some of you will soon be actively engaged in your life-work, and making your influence felt for good or ill. Let me exhort you to do your part individually and collectively as members of your profession to keep your fair fame unsullied, to preserve your particular field in the broad domain of activities free from noxious weeds and other sources of weakness; and, as far as possible let it not be said that your worst enemies are those of your own household. Bear in mind that whatever action on your part, concerted or not, even in your student days, tends in any way to lower you in the estimation of the thinking public, will assuredly react and tell against your best interests, present and prospective. There are times and seasons and an eternal fitness in things, whether of the new order or old. Each member of a profession has, in a sense, the honor of the whole body in his keeping, and this trust should be sacred: Errors of judgment on your part there will be, but let us hope of *intention*, never. It may not be out of place to say—I believe I have the warrant of your Faculty for saying—that if any of you feel uppermost the desire to live a life of mere gain, then it would be well for you to reconsider, for the time will soon be here, if it has not already come, when those who have mere gain for their chief aim must keep out of the professional walks and choose those other more direct, and too often more devious, avenues to the goal of their ambition. If you have the proper animus and reason rightly, however, I opine you will stick to your present choice, for observation shows that the vast majority of men only attain at best a competency which,

so far at least in this country, is the assured reward of energy to all who plod patiently and steadily on the round of their chosen sphere of action and give the best that is in them to their own life-work, turning a deaf ear to the many siren voices that would lure them from the straight and narrow path of duty, and so divide their energies as to cheat them of final success in its truest sense.

QUICK REPAIRING.

By G. V. N. RELYEA, L.D.S., Oswego, N.Y.

We will suppose a single tooth, or even a section, becomes loose or is broken. First file the rubber away for the reception of the new material. Then drill a hole under the adjoining teeth, slanting. If a section, drill three holes, also from the inside of the plate, counter-sink and cut pins quite near the heads, indeed long enough to come through the plate and to be bent at right angles. Place them in position and pour plaster to keep them in place. When the plaster has set put your teeth where you want them. If a section, you will have the two side pins with heads inclined and three with crooked ends. If a single tooth you will have four heads quite close together. While holding the plate in the left hand place enough of Wood's fusible metal to fill the gap and with an amalgam plugger, either held in a small alcohol blaze or in hot water, you can secure the teeth equally as well as with vulcanite, and in half an hour at most. The question now comes to the front, What is Wood's metal? The late Dr. B. Wood, of Albany, N.Y., experimented for a long time, hoping to get a filling that would supersede amalgam. The formula was given in the August number of the JOURNAL. I used it for a time, and in some cases with great satisfaction. There is a very small percentage of shrinkage owing to the low temperature at which it can be fused. For small lower crown cavities it is excellent. The profession did not take kindly to it, and it fell into desuetude, though it can be obtained at some of the dental depots yet.

A STITCH IN TIME.

By G. V. N. RELYEA, L.D.S., Oswego, N.Y.

Who is there in the dental profession that has not often wounded himself? The left hand is generally the victim, as the right hand holds the instrument. These little mishaps are very annoying and troublesome, particularly if not immediately attended to. If it is a cut, and to any great depth, I allow it to bleed freely as there will be less inflammation. I keep a fine needle, with a white silk thread in, well waxed. A small wad of bibulous paper saturated with four per cent. of cocaine is placed upon the wound, and a finger on the same hand can hold it there for ten minutes, after which it can be sewed as easily as if it were leather. It will heal by first intention. The parts being brought together, the bleeding will cease at once and you can resume work. This has saved me much pain, inconvenience, time and money.

[Try Dr. Iever's "Quick Cure." It surpasses anything else.—ED.]

Selections.

THE INFILTRATION METHOD OF ANÆSTHESIA.*

By H. V. WURDEMANN, M.D.,

Director and Secretary Wisconsin General Hospital Association; Oculist and Aurist to the Children's Hospital, the Milwaukee County Hospital for Chronic Insane, and to the Elms Hospital; Instructor in Eye, Ear and Throat, Elms Hospital; Secretary Section on Ophthalmology, American Medical Association; Milwaukee, Wis.

Just six months ago we brought to the notice of the medical profession our† conclusions obtained by following out the line of experiments instituted but a few months before by Schleich,‡ of Berlin, relative to the anæsthetic properties of water, and its application in surgical practice. The experimental stage has been passed and we are now able to substantiate some of his statements made in our first article, which at that time were not yet proved.

A brief resumé of Schleich's experiments may be advisable. This investigator was employed in research for the production of a better and less harmful method of local anæsthesia than that which

* Revised by the author for Parke, Davis & Co.

† "Explanation and Demonstration of the Infiltration Method of Anæsthesia." *Journal American Medical Association*, Dec. 29th, 1894.

‡ Schleich, "Schmerlose Operationen," Berlin, 1894.

has hitherto obtained. He first experimented with hypodermatic injections of cocaine and other drugs, finding that a 2 per cent. solution of cocaine was the weakest which would produce anæsthesia when introduced beneath the skin. A couple of syringefuls of this solution would be the toxic dose, and such an amount would be necessary in many trivial operations. It is well known that cocaine injection is dangerous to life, and even small quantities of the drug may give rise to very unpleasant symptoms.

Our investigator discovered that by injecting the solution into, but not under the skin in the surprisingly small quantity of .002 to 1.00, a practical anæsthesia would result throughout the whole thickness of the skin and insensibility more profound than that by hypodermatic injection of a solution one hundred times this strength could be obtained. The logical deduction followed that the drug itself could not be the main agent in causing the anæsthesia. Injections of distilled water were tried, and produced anæsthesia, but these were painful, *i.e.*, the infiltration of the water into the skin produced a burning pain which transcended that of a knife. Complete anæsthesia, however, followed the infiltration.

Could it be the infiltration alone that produced the pain of injection and later obtunded the sensibility? Injections of the normal salt solution (.6 per cent.) were made, but no anæsthesia followed, yet the injection itself was painless. The proposition to be solved then was as follows: If infiltration of water alone into the tissues produced pain followed by complete anæsthesia, while the injection of .6 per cent. sodium chloride was painless, but made no alteration in the sensibility of the nerve ends, there must be between these two extremes a salt solution of a certain strength which would at the same time be so similar to the normal fluid of the blood as to cause little or no pain in infiltration, and yet be sufficiently like water to produce anæsthesia of the parts so injected. Experiments proved that a .2 per cent. salt solution met these requirements. Solutions above or below these strengths were either painful to inject or produced no anæsthesia. Operations may be painlessly done by a .2 per cent. salt solution. I have personally experimented with various fluids. The ethers and alcohols are similar to water in that they cause burning pain on injection, followed later by anæsthesia. Ether, however, produces capillary hæmorrhage and alcohol coagulates the albumen of the tissues, and both substances, aside from this, are too irritative to be of use in this method. The various oils are not painful to inject, but afford no anæsthesia. They are usually absorbed without producing material change in the tissues.

Cocaine, .2 per cent.; morphine, .2 per cent.; ac. carbol, .2 per cent.; bromide of potassium, 3 per cent.; methyl violet, 1 per cent.; caffeine, 2 per cent.; sugar, 3 per cent., and other substances in

aqueous solution were found to allow of the anæsthetic action of water upon the nerve filaments. The anæsthetic drugs, cocaine, ac. carbol, and morphine have a special characteristic: *i.e.*, their addition in very small quantities to the .2 per cent. salt solution prevented the paresthesia incident to injection of simple saline solution and the infiltration of inflamed or hyperæsthetic areas could be made without pain.

The narcotics were more active when used in the .2 per cent. salt solution and could be used in even lower attenuations, for instance, .01 per cent. cocaine in a .2 per cent. salt solution prevented paresthesia. It was also found that if the solutions were used cold, their efficacy was increased many fold, and that when used at the temperature of the body, little or no anæsthesia followed.

The following formulas are advocated by Schleich : *

R	Cocaine mur20
	Morph. mur025
	Natr. chlor20
	Aqu. dest. ad	100.

M. Sterilisat. adde. sol. ac. carbol. 5 per cent. gtt ij.

S. Solution No. 1, strong. For operation upon highly inflamed or hyperæsthetic areas.

R	Cocaine mur.10
	Morph. mur025
	Natr. chlor20
	Aqu. dest. ad	100.

M. Sterilisat. adde. ac. carbol. 5 per cent. gtt ij.

S. Solution No. 2, medium. For most operations.

R	Cocaine mur.01
	Morph. mur005
	Natr. chlor20
	Aqu. dest. ad	100.

M. Sterilisat.

S. Solution No. 3, weak. For superficial operations upon nearly normal tissues.

At my request, Parke, Davis & Co., of Detroit, Mich., have prepared soluble tablets from which these solutions may be extemporaneously made by dissolving one tablet in one hundred cubic centimeters (about $3\frac{3}{8}$ fluidounces) of distilled or boiled water. These will be found convenient in practice.

All are to be kept strictly sterile ; glass stoppers or scorched

* The "keeping" qualities of these solutions are improved by the addition of a few drops (gtt jii) of a 5 per cent. solution of trikresol, as recommended by Parke, Davis & Co.

cotton, such as are used in bacteriologic experiments for the bottles; small quantities to be poured out in smaller vessels for each operation. Just before operation the solution should be cooled by laying the bottle containing it on ice. The common form of hypodermatic syringe with the finest of needles is all that is usually needed. Dr. Charles Denison, of Denver, Col., has given us an aseptic syringe of larger capacity, with piston packing of asbestos, which is particularly applicable for aseptic injection. The syringe is kept in good order by being frequently soaked in a 5 per cent. carbolic solution and the needle sterilized after each operation.

The discovery of these truths, so valuable for the question of local anæsthesia, is due simply to a slight change of method; the application of the solution within, and not under the skin. The anæsthesia is caused by the replacement of the normal fluids of the tissues by a fluid of less specific gravity (the water) which causes anemia, compression and cooling, producing thereby a temporary

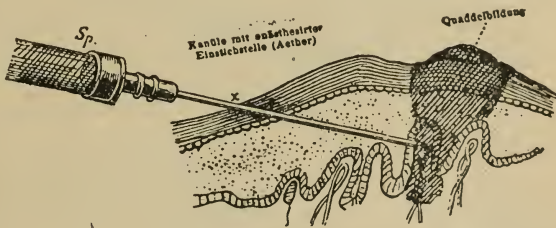


FIG. 1.—Diagram of a section of the skin, showing formation of the first wheal.

paralysis of the nerve filaments. The pain of the infiltration of indifferent solutions is abolished by the minute doses of narcotic drugs (morph., cocaine, carb. ac.).

It is perhaps well to here go into the technique of the production of local anæsthesia by this method. The field of operation is made aseptic in the usual manner. Having the required formula, the solution aseptic and cold, we fill the sterilized hypodermic syringe; pinching the skin slightly between the thumb and forefinger of the left hand, the needle is then passed obliquely under the epidermis to the papillæ, intra-cutaneously, until the lumen is fully inserted. A few drops are then injected, thereby producing a white elevated wheal, the infiltration extending throughout the whole thickness of the skin. (See Fig. 1.) There is immediate and complete anæsthesia throughout the extent of the infiltration, which lasts from ten to twenty minutes according to the density of the tissue so edematized. The needle is then reinserted at the periphery of the wheal and the area infiltrated to the required extent and depth. No tissue offers any deviation from the dictum. Every structure is made anæsthetic that can be artificially edematized; this holds

good for skin, mucous and synovial membrane, periosteum, fascia, muscle, lymph glands, nerves, viscera and even bone.

Anæsthesia exists only within the area infiltrated by the solution, and outside of that, normal sensation remains. In operations of, or through the skin and mucous membranes the first wheal is increased to the size of a dime by increased pressure on the piston; the needle is moved and reinserted at the periphery of the wheal, but still within it, and a new wheal raised. In this way the line of

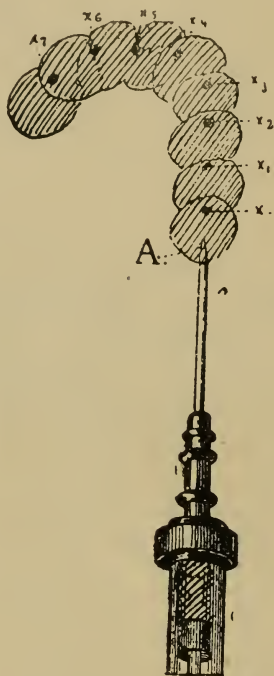


FIG. 2.—Formation of the cutaneous wheals. A—Spot made anæsthetic by ether spray for the first injection.

incision is marked out to any desired length or breadth. (See Fig. 2.) In general surgical operations we would then infiltrate the underlying tissues, by slowly pushing in the needle and injecting a few drops at a time until the deeper tissue is edematized.

By cooling the spot selected for the formation of the first wheal by ether or rhigolene spray, or on mucous membranes by touching the spot with a strong solution of carbolic acid, or applying cocaine, the first injection may be made, if so desired, without even feeling the prick of the needle. This is seldom necessary, as a very fine needle may be inserted without pain even in very tender tissues

such as the eyelids. The succeeding injections may now be made without causing sensation. There is no sensation to the infiltration proper.

Where the tissues are inflamed the sensibility is pathologically increased. Here it is indispensable that the infiltration be begun in sound tissue and carried over into the part to be operated upon. (See Figs. 3, 4.) The dilated blood and lymph channels of the inflamed skin allow us to anæsthetize quite a large spot from one puncture.

The injection should be done slowly at first, and when the infiltration is only felt by its tension we may rapidly flood the part to the required extent. Under no circumstances must fluid be

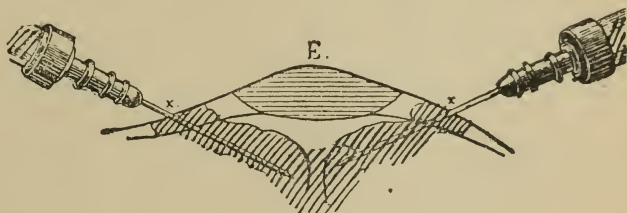


FIG. 3.—Infiltration of inflamed surfaces.

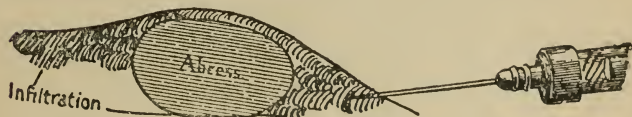


FIG. 4.—Infiltration of abscess.

primarily injected into an abscess, an exudation or a pathologic focus. The only result is increased tension and pain. We must not lose sight of the cardinal fact that the anæsthesia exists only within the area infiltrated by these solutions and that outside of that there is normal sensation. The method rests principally on the production of a complete artificial edema of the tissues. Whenever we wish to operate with exact anæsthesia, the field of operation must be tensely filled with the solution so that it exudes from the cut surface.

It should be remembered that our use of attenuated solutions of the narcotic drugs has nothing akin to the doctrine of the followers of the dogma "*similia similibus*," etc. These statements may be readily substantiated upon your own persons, as I have done many times on myself and other physicians. I need not call to your attention the well-known dangers of chloroform and ether anæsthesia and the waste of the surgeon's time, the discomfort to the patient, and the necessity for skilled assistance. Cocaine injection

of the solutions of the usual strengths (5 to 10 per cent.) is certainly far more dangerous to life than the administration of chloroform. The higher solutions of cocaine surely diminish the exudative process and retard the healing, and in some cases actually destroy the trophic filaments, so that gangrene has been known to occur. Nothing of the sort has been found to result from the infiltration of the solutions recommended in this article. Anæsthesia is complete and occurs immediately, and lasts long enough for almost any external operation. There is no objection at any time to repeating the injection if feeling should return during the operation. Indeed, we might safely operate for hours upon a small area if so inclined. The advantages of the method are also evident from its simplicity, safeness and celerity.

The method has gained credence and is now in common use by many busy practitioners. Operations have been done, from the removal of ovarian tumors and amputations, down to the opening of boils without pain, and with satisfaction both to the physician and patient. I have personally done half a hundred operations upon the eyelids, etc., by this form of anæsthesia, as well as various operations upon other parts of the body while prosecuting the investigation. My first operation was done upon a deep-seated felon. I have assisted at a number of circumcisions, excisions of tumors, and minor operations, making the injections myself. I have had reports from many surgeons in different portions of the United States, of its use for operations varying in severity from ingrowing toe-nail to hernia, in which the anæsthesia has been satisfactory. Healing has been by first intention, and in only three instances have we had reports in which it has been delayed.

For most office operations the Schleich method is an invaluable contribution to our therapeutics. It should do away with the injection of dangerous solutions of cocaine and take the place of general anæsthesia for many operations.—*Journal of the American Medical Association.*

SIMPLIFIED TREATMENT OF TEETH WITH EXPOSED PULPS.*

By WITHOLD LINDEMANN, of Rybinsk, Russia.

The pulp laid bare during excavation is covered with iodoform cement, which serves as a simple capping; this can, however, only be accomplished in those cases in which the exposed part has only the circumference of a point. The slight hæmorrhage which occurs here almost regularly is stopped by means of carbolic acid

* Translated from the *Correspondenz-Blatt für Zahnärzte.*

solution, and any pain there may be is removed by the application of a small pellet of cocaine, or a strong solution of cocaine. Thereupon the neighboring carious parts are removed with the utmost care as far as this is possible.

For the present the cavity must not be dried out with hot air; but it is thoroughly syringed out several times with luke-warm water in order to get rid of the congealed blood. A phosphate cement which does not set too quickly is then mixed with iodol (cement and iodol-powder in equal parts) to a very soft consistency; a mixture thus prepared is very sticky, and remains plastic for a considerable time.

The cavity is then rapidly and thoroughly dried with amadou, and a portion of the cement, the size of a hemp-seed, is placed upon the exposed pulp. This iodol cement should be applied very lightly by means of a smooth stopper moistened with oil; directly the patient feels pain, the pressure must at once cease. The cement may also be pressed home by means of a dry pluglet of cotton-wool dipped in talc powder.

It is well only to close the cavity provisionally and not to insert the filling until the following day; the slight pains which are generally experienced during the setting of the cement will then gradually have passed away.

It will be observed that the cement has become sufficiently hard to protect the pulp against the pressure exercised during the insertion of the filling; the cement, however, is usually distributed too unequally in the cavity, therefore it has in part to be drilled out again—of course with great care, so as not to lay the pulp bare again.

As this mode of capping can be carried out without the employment of metal caps, it is especially suitable for all cases in which the small dimension of the cavity and also the approach to it do not permit of the application of a cap.

I have employed this method in many cases without meeting with any failures.

In places difficult of access, and also where pulpitis has appeared (even if of a slight character only), it is advisable not to attempt the capping at all, but merely to cauterize the pulp; for this purpose shreds of cobalt or arsenious paste may be used.

Kirk's arsenious paste (with a slight modification) one may prepare one's self, of an excellent quality, by extremely finely triturating in a porcelain mortar arsenious acid (two parts), which is difficult to pulverize, with one part of pumice and a little carbolic acid in such a manner that even with a 150 magnifying power no arsenic crystals can be distinguished; hereupon are triturated with the mass two parts of cocaine, and one part of menthol; other additions are superfluous. A very small quantity of this paste is laid upon a pellet of cotton-wool the size of a pin's head, and this

plug is applied direct upon the exposed pulp. A temporary closure of the crown-cavity with sandarac or mastic solution, however, requires a little knack.

In order to avoid the inclosure of the paste, and prevention of its action by the resinous solution, the cotton wool soaked with the resin should never be laid direct upon the arsenious paste; the two plugs should always be kept separate by means of a pledget of cotton-wool moistened with water. The action of the arsenic will then be undisturbed, and the hardened resin will not exercise any pressure upon the pulp.

At the expiration of twenty-four hours the pulp in most cases will be so void of sensibility that it can be partly removed; otherwise the cauterization should be repeated.

For the removal of the pulp, I do not in such cases employ nerve extractors, but bore out the crown pulp by means of an aseptic engine-bur, and also partly the pulp of the root. It is not necessary for this purpose to introduce the bur deeper than from two to three mm. into the root-canal. The debris caused by the bur is removed by means of powerful syringing with warm water, whereupon the cavity is carefully prepared for the reception of the filling. After a thorough drying out of the cavity a piece of soft charcoal, the size of a hemp-seed, impregnated with *oleum cassiæ*, is laid in the pulp chamber, and pressed into the root-canals with a good-sized plugger in such a manner that it comes to lie upon the pulp-remains which are still sensitive; should the space permit, one can place a second piece of the charcoal in thus prepared. The oil of cassia which is expressed is then removed, together with any traces of blood which may be present, by means of cotton-wool, and the cavity is hermetically closed with cement or plaster of Paris. Plaster of ordinary consistency is prepared and held in readiness upon a glass-slab; of this a small quantity is laid upon the charcoal which is in the cavity. Should the plaster not adhere to the oily layer of charcoal, it is pressed tight by means of a dry plug of cotton-wool dipped in talc-powder; it will then adhere to the tooth-substance, and cover the charcoal. If the latter is insufficiently covered, a little more plaster is added, and condensed with cotton-wool. One must then wait for the plaster to harden before inserting the filling.

For the covering of the charcoal C. Ash & Sons' chloride of zinc cement (Superior) is the most suitable of all the cements known to me. The phosphate cements, which in a plastic condition do not possess any affinity for water, are more difficult to use, and cannot well be fixed on the floor of the cavity. Nor can the chloride of zinc cement by itself be fixed with the aid of pluggers; on the other hand, it can be introduced with ease if the cement, mixed moderately soft, is pressed down with cotton-wool plugs dipped in talc powder.

The sealing of the cavity with cement is certainly much more reliable than with plaster of Paris. After the hardening (the cement will harden under water), the crown cavity is carefully prepared for the introduction of the filling. All undercuts, etc., and also the cervical margin, are cleared of plaster, or, rather, of incompletely hardened cement, and every trace of superfluous material is removed. The cofferdam is then applied, the cavity dried, and filled in any way desired.

Of 243 teeth, which I have filled during the last two years by this method, I had to record in the early part of this time only four failures, which, however, are to be accounted for by insufficient cauterization and defective cleansing of the pulp cavity; yet even in these cases the pains (pulpitis) which supervened disappeared on the repeated application of arsenic. Periostitis did not, however, occur in a single case. I prefer, therefore, this method to any other, and have discarded definitely the filling of the roots after the cauterization of the pulp.

With pulpless teeth this method cannot be adopted; in the treatment of these teeth the antiseptic filling of the entire root-canal cannot perhaps be avoided.

Discoloration of the dentine is not to be feared by the employment of this method, if due care has been taken to cover the charcoal at the transparent dentine layers.

HOW TO STERILIZE INSTRUMENTS WITHOUT DANGER OF RUST.—Iron, steel and nickel only rust when exposed to the combined action of carbonic acid, moisture and oxygen. If any one of this triad is absent or neutralized, the metal remains unaffected. Certain alkalies neutralize the carbonic acid in water, and when this is neutralized no rust forms on metals when immersed in it. After careful experiments, Levia has found that the best alkali for the purpose is natrium hydrooxydatum causticum (NaOH). He adds a small quantity of the crystals to boiling water, and after they are entirely dissolved and mixed, he immerses the instruments and boils them *ad libitum*, with never a trace of rust nor tarnish when they are taken out. One-fourth of one per cent. or even less of the natrium is sufficient, but it must be pure, with no sulphur, as this causes rust. If knives and scissors are wrapped in gauze to protect the edges, they can be effectively sterilized in this way without the slightest injury of any kind. It is equally effective and non-injurious for drainage tubes, etc., but it is not adapted for aluminum nor silk and it softens brushes. If the instruments are left afterward wet and exposed to the air, rust will form, but they can be kept several hours, if necessary, in sterilized water to which 1.5 to 2 per cent. of the natrium has been added.—

Wein. klin. Rundschau.

Reviews.

The American Text-Book of Prosthetic Dentistry. In contributions by eminent authorities. Edited by CHAS. J. ESSIG, M.D., D.D.S., Professor of Mechanical Dentistry and Metallurgy, Department of Dentistry, University of Pennsylvania, Philadelphia. Illustrated with 983 engravings, 751 pp. Philadelphia and New York : Lea Brothers & Co. 1896.

List of contributors: Drs. H. M. Burchard, C. J. Essig, W. W. Evans, C. L. Goddard, G. Molyneaux, R. Ottolengui, A. Tees, A. H. Thompson. If we said nothing more than that this work is very much the best in its line in our literature ; that it is written and edited by masters in their art ; that it is up to date in every particular, and that it is a credit to its publishers, we should say, perhaps, all that is necessary to encourage every practical dentist and student to buy it. A work of a purely scientific character naturally finds a somewhat restricted market, but there are probably not half a dozen dentists in existence who would not find it practically profitable to give this book their careful attention. It is a practical course on prosthetics, which any student can take up, during or after college, and it would not be the fault of its contributors, if any mechanical dentist was not much the better after thoroughly digesting it. The contents are divided into twenty-one chapters, as follows: "The Dental Laboratory, its Equipment and Arrangement," by Dr. Essig ; "Metals and Alloys used in Prosthetic Dentistry," by Dr. Essig ; "Principles of Metal Work," by Dr. Goddard ; "Moulding and Carving Teeth," by Dr. Essig ; "The Preparation of the Mouth, Choice of Material and Type of Denture," by Dr. Burchard ; "Taking Impressions of the Mouth," by Dr. Burchard ; "Making Models and their Preparations," by Dr. Burchard ; "Dies, Counter-dies and Moulding," by Dr. Burchard ; "Swaged Metallic Plates," by Dr. Burchard ; "The 'Bite' or Occlusion," by Dr. Grant Molyneaux ; "Selecting and Fitting the Teeth ; Attachment to the Plate ; Finishing," by Dr. Burchard ; "English Tube Teeth ; their use in Plate, Crown and Bridge-work," by Dr. Essig ; "Continuous-gum Dentures," by Dr. Tees ; "Cast Dentures of Aluminum and Fusible Alloys," by Dr. Goddard ; "Vulcanized Rubber as a Base for Artificial Dentures," by Dr. Essig ; "Celluloid and Zylonite," by Dr. Evans ; "The Temperaments and the Temperamental Characteristics of the Teeth in Relation to Dental Prosthesis," by Dr. Thompson ; "Artificial Crowns," by Dr. Burchard ; "The Assemblage of United Crowns (bridge-work)," by Dr. Burchard ; "Hygienic Relations and Care of Artificial Dentures," by Dr. Essig ; "Palatal Mechanism," by Dr. Ottolengui.

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DENTAL SINNERS.

One of the very many good clergymen,—“there are others”—once asked us “Why do you bother about quackery? Why don’t you let these quacks alone?” to which we replied, “Why do you bother about sin? Why don’t you let the sinners alone?” “But my mission is to save souls; yours only to save teeth,” said he. “Very true,” we remarked, “but do you think your moral code or religious creed, will exempt from condemnation the dentist who deliberately lies, and who deceives and swindles people who entrust to him the care of their bodies? Is a thorough quack not as much a sinner against your belief as a common thief? There is, after all, some justification for the starving man who steals food, or the freezing man who steals fuel; but tell us, where do you find excuse for the dentist who deliberately wrongs and robs his patients? Now, if we succeed in making this dental sinner conscious of his iniquity, we make him a better subject for you; we do something towards helping you in the matter of his salvation. That seems to us logical. Isn’t it theological?” Our clerical friend gave successive nods of apostolical approval, so that question is settled.

THE INFIRMARY.

That a dental infirmary established in a large city should have the same imposture practised upon it as a General Hospital, need cause no surprise. If the general public have the run of such institutions, upon the mere pretext of impecuniosity, it will be impossible to prevent imposture. The infirmary must have patients. We doubt if the dentists themselves will supply them from their own practice. It is possible to make such regulations that the infirmary would not get a sufficient supply. That must not be.

From experience in the Quebec school, we still see no difficulty in the way of getting a really deserving class from among the inmates of certain charitable institutions in Toronto. There is no use appealing, as a rule, to any one but the lady directresses of these institutions. The question of payment for materials could be met by a small reserve fund in such institution, upon which the infirmary could draw, in proportion to the cost. Has any attempt been made practically to reach these organizations?

TOO CHEAP.

The Toronto *Star* had the following editorial note a few weeks ago :

"A large clothing manufacturing concern says that the public demand for cheap clothing compels a reduction of 10 per cent. in wages. This public desire is one of the curses of modern society. The demand for cheap goods, especially clothing, is so reducing prices that those who do the work cannot earn a fair living. When will the public cease to cry, 'Cheaper, cheaper, cheaper !' and give the workers a chance to live?"

Very fitly it may apply to dental practice. While it is easy to understand that by reduced wages and large sales, fair profit may be made in these branches of manufacture, it is just as easy to understand that the notoriously cheap dentist is a quack, and is not such a fool as to give the best for the poorest fee.

A GREAT SURPRISE.

A recent visit to the college in Toronto was to us a very agreeable surprise, as we had not been able before to see it in running order. From top to bottom it is a model, equipped and conducted in the most systematic manner. The students have no sort of excuse to-day for not learning their profession. We venture to believe that there is no better arranged dental school on the continent.

DR. HAROLD WOOD.

Our worthy friend, Dr. Wood, President of the R. C. D. S., has the deepest sympathy of his many friends in the recent death of his son, Dr. Harold Wood, in his 28th year, after over seven years' illness.

We omitted in the last issue to say, that Dr. Beers withdrew his resignation, when his colleagues, discovering that they had been deceived, withdrew their names from the petition referred to.

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